A

REPORT ON

VOLTAGE WISE TARIFFS

Joint Group constituted by AP power Utilities

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CHAPTER – 1

INTRODUCTION

APDISCOMS have submitted ARR for FY 2018-19 on 01.12.2017 and have proposed the voltage wise tariffs in their ARR for 11 KV, 33 KV and 132 KV.

Hon'ble APERC had conducted the public hearings on the ARR filed by APDISCOMs and issued tariff order for the FY 2018-19 on dt.27.03.2018 with the voltage wise tariffs as proposed by APDISCOMs in their ARR.

During the public hearings on the ARR filed by the APDISCOMs, one of the objections raised by the objector is Voltage-wise tariff above 132 kV.

Objection on Voltage-wise tariff above 132 kV

Sri S De Sarkar, Business Head, M/s Abhijeet Ferrotech Limited, Visakhapatnam, thanking APEPDCL for the cooperation extended so far, has stated that the tariffs in respect of EHT consumers receiving power at 132 kV, 220 kV and 400 kV are being proposed by APEPDCL at same level, during the past few years. The losses in the power network depend upon the voltage of the system. The losses in the transmission system are different which operate at 132 kV, 220 kV and 400 kV. Higher the voltage lower is the loss. The reduction in the cost of supply therefore deserves to be passed on to high voltage consumers in the form of lower tariff. The cardinal principles under the Electricity Act, 2003 also provide for passing on such reduction in losses to the respective EHT consumers in the form of reduced tariffs. The proposal is objected and it is suggested that APEPDCL has to propose separate voltage wise tariffs in respect of consumers receiving power at 132 kV, 220 kV and 400 kV as is being provided by the eighteen (18) nos. of Discoms of other States viz. Chhattisgarh, West Bengal, Haryana, Madhya Pradesh, Uttar Pradesh, Karnataka and Kerala. In the tariff order for FY2017-18 and in the past years as well, APEPDCL had stated that the transmission system of Andhra Pradesh is operated in ring mode (Integrated System) and hence voltage wise losses for 132 kV, 220 kV and 400 kV systems cannot be separately determined. The transmission systems in all other States in the country are operated in ring mode only. Still, various DISCOMs in the country have implemented voltage wise tariffs for EHT consumers. This it makes amply clear that the transmission system being operated in ring mode should not be a stigma to desist from proposing voltage wise tariffs for EHT consumers by APEPDCL.

CHAPTER – 2
DIRECTIONS OF HON'BLE COMMISSION

The working of voltage wise tariffs in eighteen (18) other distribution companies, the decisions of Hon'ble Appellate Tribunal for Electricity on this aspect and the other circumstances pointed out by the objector may be studied by a joint group of senior officers of both the distribution licensees and the transmission licensee with reference to the operation of the transmission and distribution system in the State of Andhra Pradesh more particularly the peculiarities in this State like there being no consumer of 400 kV and the methodology adopted by the Central Electricity Regulatory Commission.

The distribution and transmission licensees in the State may take a view on the report of the study group and submit the report and their views to the Commission before the end of July, 2018 to enable the data to be considered on merits in assessing the tariff proposals for the FY2019-20. The distribution and transmission licensees should report to the Commission about the constitution of the joint group before the end of April, 2018.

CHAPTER – 3

CONSTITUTION OF JOINT GROUP

Based on the objections and directions of the Hon'ble APERC, APTRANSCO constituted a joint group vide T.O.O. (ED-HRD&Plg) Rt.No.669 Dated.14.06.2018 with the following members to study the working of voltage wise tariffs above 132 KV in eighteen (18) nos. DISCOMs of other States with reference to the operation of the transmission and distribution system in the State of Andhra Pradesh more particularly the peculiarities in the State like there being no consumer of 400 KV.

1. Chief Engineer/Transmission - Member
2. Chief Engineer/SLDC - Member
3. FA & CCA (Accounts) - Member
4. Chief General Manager/Plg.,PPA&RA/APEPDCL – Member
5. Chief General Manager/RAC/APSPDCL - Member
6. Executive Director/HRD & Planning/APTRANSCO- Member
7. Chief Engineer/IPC & PS - Member Convenor

CHAPTER – 4

STYDY OF TARIFF ORDERS OF DIFFERENT STATES

1. CHATTISHGARH:

- The Chhattisgarh State Electricity Regulatory Commission, Raipur has issued Retail Tariff Order for FY 2018-19 on 26.03.2018 to Chhattisgarh State Power Distribution Company Limited (CSPDCL). The Tariff Order is effective from 01.04.2018.

- The Consumers are classified under Low Voltage (LV) and High Voltage (HV).

- The consumers are classified under HV in 11 KV/33KV/132 KV/ 220 KV/ 400 KV.

- Generating Stations and Captive Generating plants only can avail power supply at any voltage from 11 KV to 400 KV for startup operations.
- Other HV consumers are classified in 11 KV/33KV/ 132 KV/ 220 KV only.

- It can be seen from the Tariffs structure that certain consumers are placed in different Voltage levels from 11KV/33KV132/220KV having different Tariffs at each voltage level and certain consumers can avail supply at different voltages with same Tariff.

- The different Consumer Categories and Tariffs are shown in the enclosure **Annexure-1.**

Findings:

a) References to APTEL proceedings in the matter of Voltage wise Tariffs is not found/followed in the Tariff Order.

b) The **tariffs for all consumer categories** have been **approved** in **such a manner** that the **cross-subsidies are reduced gradually**, and the **tariffs** for most of the consumer categories **is within the band of +/- 20% of Average Cost of Supply**, as **stipulated** in the **Tariff Policy** notified by the Government of India.

2. WEST BENGAL:

- The West Bengal Electricity Regulatory Commission has issued Tariff Order for FY 2015-16 to West Bengal State Electricity Distribution Company (WBSEDCL) on 28.10.2016. The rates are effective from 01.04.2016 till further orders.

- The different Consumer Categories and Tariffs are shown in the enclosure **Annexure-2.**

- The Consumers are classified under Low and Medium Voltage (LV) and **High and Extra High Voltage (EHV).**

- The High and Extra High Voltage (EHV) starts from 11 KV/33KV/132 KV/ 220 KV & 400 KV.

- The Commission determined Voltage wise Tariffs and redesigned the tariff structure so that (i) None of the class of consumers based on purpose of supply has been charged with a tariff in order to see that the average tariff for that category of consumers remains **within 120% of the average cost of supply** in Line with National Tariff Policy.

Findings:

a) References to APTEL proceedings in the matter of Voltage wise Tariffs is not found/followed in the Tariff Order.

b) The Commission directed the WBSEDCL to submit matrix wise consumption and AT&C losses for each segment as below to bring out separately the technical and commercial loss required for achieving the target AT&C loss.

Voltage Level	Rural		Urban		City	
	Consumption in MU	AT&C Loss %	Consumption in MU	AT&C Loss %	Consumption in MU	AT&C Loss %
132 kV and above						
33 kV						
11 kV						
L &MV						

c) It can be seen from the above that, the Commission of West Bengal **considered Voltage Level at EHT as 132 kV and above only**, but did not specify Losses for 220 kV, 400 kV separately.

3. **HARYANA:**

- The Haryana Electricity Regulatory Commission has issued Distribution & Retail Tariff Order for FY 2018-19 on 11.07.2017, effective from 01.07.2018.

- The different Consumer Categories and Tariffs are shown in the enclosure**Annexure-3.**

- It can be seen from the Tariffs structure that the Tariffs are fixed Voltage wise in the levels of 11 kV, 33kV, **66kV or 132 kV**, 220 kV, 400 kV.

Findings:

a) The DISCOMS i.e Uttar Haryana Bijli Vitaran Nigam Limited (UHBVNL) and Dakshin Haryana Bijli Vitaran Nigam Limited (DHBVNL) have calculated voltage wise technical losses for working out voltage wise CoS. **The calculations are done for LT & HT upto 33 kV only.**

b) In the absence of a comprehensive consumer category wise CoS filed by the DISCOMs, the **Commission**, in line with the **APTEL's judgement dated 30.05.2011 in Appeal No. 102,103 & 112 of 2010** had adopted the methodology suggested by the Hon'ble APTEL in the ibid judgement dated 30.05.2011 for broadly working out voltage wise CoS for the FY 2017-18.

c) The voltage-wise loss calculations are done based on the data submitted by the DISCOMs, it is possible to work out the total losses up to 11 kV level only and overall losses at LT levels.

d) However, the **Commission felt that** working out losses at different HT voltage levels i.e. **66 kV, 132 kV, 220 kV etc. is not possible till such time similar data is made available** at these voltages by the Utilities. **Hence, for calculating voltage wise losses, the Commission has broadly considered only two categories i.e. HT (11 kV level and above) and LT voltage levels.**

e) The Commission directed the licensees to finalize the methodology for Cost of supply (CoS) / voltage wise and category wise cost of services and submit the proposal to the Commission.

4. MADHYA PRADESH

Madhya Pradesh Electricity Regulatory Commission has determined voltage wise Cost of Supply for above 33KV, 33KV and 11KV+ LT categories as Rs.5.65 /-, Rs.5.88 /- and Rs.6.08 /- respectively for FY 2018-19.

However, the Commission has fixed Tariffs for Industrial category as given below:

S.No	Sub- Category of consumer	Monthly Fixed Charge (Rs./KVA of billing demand per month)	Energy Charge for consumption up to 50% load factor (Paise/unit)	Energy Charge for consumption in excess of 50% load factor (Paise / unit)
1	**Industrial**			
	11 KV Supply	330	660	600
	33 KV Supply	510	650	550
	132 KV Supply	610	605	525
	220/400 KV Supply	620	565	500

As seen from the above, the MPERC has increased fixed charges and decreased energy charges with the increase in supply voltage. Even though there is no segregation in cost of supply between 132 KV and 220 KV on the basis of losses, the Commission has fixed differential tariff for 132KV and 220/400 KV supply.

5. UTTAR PRADESH:

The Commission has approved cost of supply for 11 kV and above 11 kV categories only. The cost of supply for HV categories above 11 kV is Rs.6.67 /- and HV categories at 11 kV is Rs.7.18 /- for FY 2017-18.

The Commission has fixed tariffs for the industrial voltage categories – upto 11 kV, above 11kVupto 66 kV, above 66 kV and upto 132 kV and above 132 kV. The tariffs are as shown below:

	For supply upto 11KV	For supply above 11KV and up to 66KV	For supply above 66KV and up to 132KV	For supply above 132 KV
Base Rate				
Demand Charges	Rs.250 /KVA/ Month	Rs.240 /KVA/ Month	Rs.220 /KVA/ Month	Rs.220 /KVA/ Month
Energy Charges	Rs. 6.65 / kVAh	Rs. 6.35 / kVAh	Rs. 6.15 / kVAh	Rs. 5.95 / kVAh

As seen from the above, there is segregation of tariff between 132 kV and 220 kV voltage level industries even though Cost of Supply is not segregated for 132 kV and 220 kV voltage levels.

6. KARNATAKA (BESCOM) :

The Commission has determined Cost of Supply for the voltage levels HT Supply-11 kV/33 kV, 66 kV and above level. The cost of supply for HT - 11KV/33 KV is Rs.4.66 /- and 66KV and above voltage levels is Rs.4.26 /- for FY 2018-19.

The Commission has approved tariffs for HT industries as given below:

HT 2 (a) (i) :Applicable to areas under BBMP and Municipal Corporations

Details	Tariff approved by the Commission
Demand Charges	Rs.210 / KVA of billing demand / month
Energy Charges	
For the first one lakh units	665 paise / unit
For the balance units	695 paise / unit

HT 2 (a) (ii) :Applicable to areas other than those covered under HT 2(a) (i)

Details	Tariff approved by the Commission
Demand Charges	Rs.200 / KVA of billing demand / month
Energy Charges	
For the first one lakh units	660 paise / unit
For the balance units	680 paise / unit

Rebate for supply at High Voltage:

If the consumer is availing power at voltage higher than 132KV, he will be entitled to a rebate as indicated below:

a) 33/66 KV : 2 paise / unit of energy consumed

b) 110 KV : 3 paise / unit of energy consumed

c) 220 KV : 5 paise / unit of energy consumed

The Commission has provided segregation of tariff between 110KV and 220KV through differential rebate even though there is no segregation of Cost of Supply between the two voltage levels.

7. **KERALA :**

Kerala Electricity Regulatory Commission has determined voltage wise Cost of Supply for LT, HT and EHT voltage levels only for FY 2017-18 and the same are as follows:

The Cost of Supply for LT, HT and EHT voltage levels are Rs.5.37 /-, Rs.5.03 /- and Rs.4.76/- only.

The tariff applicable to general purpose EHT industrial loads is as follows:

EHT Industrial (66 KV)	
a) Demand Charges (Rs. / KVA of Billing demand / Month)	300
b) Energy Charges (Rs. / kWh)	5.20

EHT Industrial (110 KV)	
a) Demand Charges (Rs. / KVA of Billing demand / Month)	290
b) Energy Charges (Rs. / kWh)	5.10

EHT Industrial (220 KV)	
a) Demand Charges (Rs. / KVA of Billing demand / Month)	280
b) Energy Charges (Rs. / kWh)	4.70

The Commission has provided segregation of tariff between 110 kV and 220 kV through differential tariff even though there is no segregation of Cost of Supply between the two voltage levels.

CHAPTER – 5

STUDY OF METHODOLOGY IN DIFFERENT STATES

Bangalore Electricity Supply Company (BESCOM)

APDISCOMs officials met and interacted with the officials of BESCOM and Director / Tariff / KERC to study in detail the tariff difference between 110 kV and 220 kV category consumers.

Response of DGM/RAC/BESCOM:

The rebate for 110 kV and 220 kV consumers of 3 paise & 5 paise respectively for energy consumed has been existing since long time. There is no basis for rebate of 3 paise & 5 paise for 110 kV and 220 kV consumers.

Response of Director / Tariff / KERC:

The rebate for 110 kV and 220 kV consumers of 3 paise & 5 paise respectively for energy consumed was introduced promotionally 20 years back and is being continued.

Chattisgarh State Power Distribution Company Limited (CSPDCL)

Response of Executive Engineer:

APDISCOMs officials discussed various issues encompassing the Voltage wise tariffs issue, at length and it is informed that the study of actual voltage-wise losses were not yet carried out as directed by Hon'ble APTEL in its judgment dated 24 March 2015 in Appeal No. 103/2012.

However, it is noted that the CSPDCL submitted the Tariff filings for FY 2018-19 to their Chattisgarh Electricity Regulatory Commission with certain assumptions of voltage wise losses (**all EHT Voltages clubbed together**) and the **Cost of supply was also arrived based on the above assumptions..**

The Chattisgarh Commission has noted the difficulties in assessing the Voltage wise Cost of Service (VCoS), and observed that in the absence of a realistic assessment of the voltage wise losses, the determination of VCoS may lead to incorrect conclusions.

Accordingly, the Chattisgarh Commission while determining the Retail Supply tariffs, relied on the Average Cost of Supply and historical tariff schedule and there by differentiated the tariffs applicable across different voltages at EHT level through **some rebate on historical reasons & encouragement**. A rebate of around paise 10 to paise 15 has been given in the tariffs for different categories at 220 kV.

Findings

The CoS of at different voltages is dependent on the following two main factors.

a) Losses at relevant voltage

b) Asset usage i.e Lower Voltage assets are not used for supply at higher voltages.

These two parameters are specifically related to the State Transmission Utility (STU) i.e AP TRANSCO.

Historically AP State doesn't have tariff segregation at EHT level, so exploring the option of allowing a rebate of paise 10-paise 15 per unit doesn't arise at all, even as a matter of encouragement, as it leads to discretion, as the decision is not based on scientific study.

CHAPTER – 6

APTEL JUDGEMENTS

1. APTEL JUDGEMENTS

In this context the Joint group has also studied the various petitions filed by different parties in APTEL.

A) Petition filed by the Abhijeet Ferrotech Limited vide Appeal nos. 126 & 159 of 2012 in Hon'ble APTEL: (Annexure 4)

Abhijeet Ferrotech Limited vide Appeal nos. 126 & 159 of 2012 in Hon'ble APTEL filed a petition against the order dated 30.3.2012 passed by the Andhra Pradesh Electricity Regulatory Commission determining the Annual Revenue Requirement ("ARR") and Tariff for the four Distribution Licensees of the Andhra Pradesh for the FY 2012-13 with the following respondents

1. **Andhra Pradesh Electricity Regulatory Commission,**
2. **Central Power Distribution Company of Andhra Pradesh Ltd.,**
3. **Eastern Power Distribution Company of Andhra Pradesh Ltd.,**
4. **Northern Power Distribution Company of Andhra Pradesh Ltd**
5. **Southern Power Distribution Company of Andhra Pradesh Ltd.,**

Ferro Alloys Producers Association, the Appellant in Appeal no. 159 of 2012 has raised many issues and one of the issue is the **Failure to determine the tariff for 220 kV users** by Hon'ble APERC.

Failure to determine the tariff for 220 kV users: The State Commission has erred in not determining a separate tariff for consumers availing power supply at 220 kV. Such consumers are a different class. The cost of supply at 220 kV is lower than that of 132 kV and 33 kV users and, therefore, a separate tariff should have been determined for the consumers taking supply at 220 kV.

DISCOMs Reponses

The distribution network at 11 kV and 33 kV is operated in radial mode, whereas the EHT network at 132 kV, 220 kV and 400 kV is operated in ring mode or interconnected mode resulting in loop flows. The power flow path in the transmission system cannot be distinctly differentiated at different voltage levels. The power can flow from lower to higher voltage or higher to lower voltage in ring system depending on the physics of the system. Hence EHT system losses can only be determined and voltage wise losses cannot be determined separately. Therefore, the State Appeal nos. 126 & 159 of 2012.

Commission considered the system losses for the entire EHT system since it is operated in integrated manner and hence only one tariff has been fixed by consumers connected to EHT system irrespective of their availing supply at 132 kV or 220 kV. On the other hand, losses at different levels of 11 kV or 33 kV operating in radial mode are determined separately. Moreover, the cost of infrastructure for supply to consumers at 220 kV is higher than at 132 kV level.

APETL Findings

State Commission in the impugned order has determined cost of service for different industrial consumer categories at 11 kV, 33 kV and 132/220 kV. While the cost of service has been determined separately for 11 kV and 33 kV for 132 kV and 220 kV it has been clubbed and a common cost of service has been indicated.

Accordingly, the respective tariffs have been determined for 11 kV, 33 kV and 132/220 kV. The objection of the Appellants is regarding clubbing 132 kV and 220 kV and not determining separate tariffs for 132 kV and 220 kV levels.

M/s. Abhijeet Ferrotech Ltd. in their comments before the State Commission had raised objection regarding non-determination of tariff at 220 kV. On this objection, the State Commission has made the following observations in the impugned order: *"The 220 kV system is integrated with 400 kV system and operated in the ring. The system losses are measured for the entire EHT system i.e. 400 kV, 220 kV and 132 kV. Hence, the Commission is not envisaging a separate tariff for 220 kV system"*

We find that the State Commission while determining the cost of service at different voltage levels has taken the respective losses and transmission charges for the integrated intra-state transmission system and integrated inter-state transmission system. Thus, the charges and losses for intra-state transmission has been determined on postage stamp basis. As stated by the Respondents, the EHT system is operating in integrated manner and segregating the losses for 220 kV would be difficult. We feel that the State Commission has determined the cost to serve at different voltage levels at LT, 11 kV, 33 kV and combined cost for 132/220 kV. The State Commission did not segregate the losses for 220 kV due to integrated operation of the EHT system and complications in determination of segregated losses. Further, the tariff for Ferro Alloys Units at 220/132 kV has been kept lower much than the average cost of supply i.e. about 17% lower than the average cost of supply. Thus, we find that the State Commission has adopted a reasonable approach in determining the tariff of Ferro Alloy Units availing supply at 220 kV/132 kV.

If the State Commission has decided to include the combined transmission charges and losses for the integrated intra-state transmission system and for the inter-State transmission system of POWERGRID in the cost of supply of consumers at all voltage levels including the 220 kV level, we cannot hold that this approach is illegal. The EHT transmission system is owned and operated by the transmission licensees whose transmission charges and losses are determined for the integrated system and not for supply at different voltage levels viz. 220 kV or 400 kV. If the State Commission has not segregated the transmission charges and losses for loading to cost of supply of consumers at 220 kV and 132kV, we cannot say that this is arbitrary or illegal. 65. Section 62(3) of the Electricity Act, 2003 permits differentiation in tariffs due to various specified factors including voltage of supply. The State Commission has already differentiated the tariffs on the basis of voltage of supply at 11 kV, 33 kV and 132/220 kV. If the State Commission has clubbed the EHT consumers at 132/220 kV, due to complexities in segregation of tariff and in view of a common charges and losses for the integrated intra-State and inter-State transmission system it could not be considered wrong.

Commission response

The transmission system of Andhra Pradesh is integrated system which consists of 400 kV, 220 kV and 132 kV. The power flow path in a transmission system cannot be defined. The physics of the system determines the power flow path and hence voltage wise losses cannot be determined. Voltage wise losses for a single continuous path (contract path) can be calculated as done by CERC, but for an integrated system, the system losses can only be arrived. The APERC has adopted the system losses for EHT voltages, i.e., 132 kV, 220 kV and 400 kV, since EHT system is operated as an integrated.

The distribution system in 33 kV, 11 kV and Low Tension voltages is operated in radial mode unlike EHT transmission system. As the distribution system is being operated in radial mode, it is possible to arrive at voltage wise losses for 33 kV, 11 kV and Low Tension. The EHT transmission system is operated in ring mode (integrated system) and hence cannot segregate the losses voltage wise.

The Power Grid Corporation of India also arrived one transmission loss for their system as it is also one integrated system, PGCIL system consists 400 kV, 220 kV and 132 kV.

Hence, the 220 kV system is integrated with 400 kV system and operated in the ring. The system losses are measured for the entire EHT system i.e., 400 kV, 220 kV and 132 kV. Hence, the Commission is not envisaging a separate tariff for 220 kV system.

Finally the issue (i.e. Failure to determine the tariff for 220 kV users) is decided against the Appellants (i.e. Abhijeet Ferrotech Limited) by APTEL.

B) Appeal No. 179 of 2012, Dated. 31.05.2013 - Kerala High Tension and Extra High Tension Industrial Electricity Consumer's Association Productivity House Vs Kerala State Electricity Regulatory Commission & Kerala State Electricity Board. (Annexure 5)

- In the above Appeal the petitioners raised the issue on Determination of tariff on the basis of category wise/voltage wise cost of supply and not on the basis of Average Cost of supply.

- The APTEL in the above order at page 74/106 pointed out that, in the Commissions Tariff Order, the method of cost of supply at EHT is not in consonance with the ratio laid down by the Tribunal in Tata Steel judgment in Appeal no. 102 of 2010 and batch and directed the Commission to determine the voltage-wise cost of supply for the various categories of consumers.

Appeal No. 102 of 2010, Dated. 30.05.2011 (para 31 to 35) – Tata Steel and Batch Vs Odisha Regulatory Commission, North Eastern Electricity Supply Company, of Orissa Limited. (Annexure 6)

- The APTEL referred section 61(g) of the 2003 Act mandates that the State Commission while determining the tariff shall be guided by the objective that the tariff progressively reflects the cost of supply of electricity and also the cross-subsidies are reduced.

- The APTEL made observations on the Commission's difficulties in determining cost of supply and opined that, it will not be prudent to wait indefinitely for availability of the entire data and it would be advisable to initiate a simple formulation which could take into account the major cost elements. There is no need to make distinction between the distribution charges of identical consumers connected at different nodes in the distribution network. It would be adequate to determine the voltage-wise cost of supply taking into account the major cost element which would be applicable to all the categories of consumers connected to the same voltage level at different locations in the distribution system and gave a practical formulation to determine voltage wise cost of supply to all category of consumers connected at the same voltage level in paragraphs 31 to 35 of the order.

- APTEL remanded the matter to the Commission to correctly determine the variation of tariff of the appellant's category with respect to average cost of supply and provide consequential relief to the appellants in terms of the Tariff Policy, if any.

❖ **Observations on the above:**

1. It is seen from the above that, the DISCOMs or the Commissions referred as above have not arrived at Voltage wise Tariffs at 220 kV and 400 kV separately, which the APTEL also observed the same. No specific workings of Voltage wise Tariffs in those States have done.

2. The APTEL also did not set aside the Tariff Orders of the respective Commissions, but advised the Commissions to follow the methodology suggested by APTEL under Para 31 to 35 of the order in Appeal 102 and batch, Dated 30.05.2011.

3. The methodology suggested therein is only a guiding principle on determination of cost of supply to different categories of consumers *though not very accurate, but a simple and practical method to reflect the actual cost of supply as* opined by APTEL.

4. The APTEL Orders are not binding to APDISCOMs as they are not a party to the petitions.

   The DISCOMs are already following the Voltage wise embedded Cost of Supply methodology approved by Hon'ble APERC in determining CoS and tariffs worked out accordingly.

CHAPTER – 7
CONCLUSIONS

- The CoS at different voltages is dependent on the following two main factors.
  - Calculation of Losses at relevant voltage and
  - Asset usage at relevant voltage level as per the power flow in the system i.e., either Low Voltages to Higher Voltages or Higher Voltages to Lower Voltages as the system is integrated and also due to significant increase in RE generation at 33kV and 132 kV voltage levels.

- Most of the states which are implementing voltage wise tariffs are giving some concessional tariff/rebate in the tariff as the same is followed by them since long time. Neither they have basis for such rebate nor there is no scientific methodology available in arriving of the above tariff by them.

- Due to existing difficulties in assessing the Voltage wise Cost of Service (VCoS) and also there is no possibility for realistic assessment of the voltage wise losses. The determination of VCoS may lead to incorrect conclusions.

- In the absence of any scientific methodology in arriving at voltage wise Cost of Service, voltage wise tariffs cannot proposed merely on assumptions in the present situation in accordance with APTEL directions, unless the necessary mechanism is developed for segregating the Assets usage at different HT voltages and calculation of losses attributable to flow of energy at different voltages.

- In GTCS, Clause No. (3) states the following

3.<u>System of Supply</u>

3.1 Declared Voltage and Frequency

3.1.1 The Company shall supply electricity at a frequency of 50 Hz with variation limits as per Rule 55 of the Indian Electricity Rules 19561. The power supply shall be uninterrupted, as far as possible.

3.1.2 The Company's declared voltage of supply with variation limits as per Rule 54 of IE Rules 1956, shall be generally as follows:

Voltage level	Declared Voltage
Low Tension (LT)	Single Phase: 240 volts between phase and neutral; and Three Phase: 415 volts between phases of alternating current – 50 cycles
High Tension (HT)	Alternating current 3-phase, 50 cycles, 11 kV between phases for loads upto 1500 kVA. For loads exceeding 1500 kVA, the Company reserves the right to supply at higher voltage of 33 kV, 132 kV or 220 kV
Extra High Tension (EHT)	Three Phase: 132 kV/ 220 kV Two Phase: 132 kV/ 220 kV for existing Railway Traction

In view of the above, it is to submit that, there is no demarcation of the Contracted Demand/Capacity for 132 kV, 220 kV and 400 kV. APDISCOMS are releasing supply as per the provisions of GTCS.

- Transmission system of APTRANSCO is operated in ring mode (integrated system) which consists of 400 kV, 220 kV and 132 kV. The power flow path in a transmission system cannot be defined voltage wise. In EHT system, the power can flow from lower to higher voltage or higher to lower voltage, depending upon the physics of the system. The physics of the system determines the power flow path and hence EHT system losses can only be determined as a whole and voltage wise losses for 132 kV, 220 kV and 400 kV may not be separately determined.

- To determine 220 KV tariff, segregation of assets at 132 KV, 220 KV and 400 KV is required. Technically, it is not possible to segregate the assets at 132 KV, 220 KV and 400 KV as the system is integrated and the power flows are also either way i.e., from Higher voltages to Lower Voltages or Lower Voltages to Higher Voltages as mentioned in the above para.

- Hence, determination of voltage wise tariff at EHT level is not technically possible. If at all it is assessed, it will be arbitrary and are not supported by any technical & commercial principles & methodology.

Exploring the option of allowing a rebate doesn't arise at all (as done in the most of the States), even as a matter of encouragement, as it leads to discretion, as the decision is not based on scientific study.

B.V. Shanthi Sekhar
ED/SLDC/APTRANSCO
Member

CE/Transmission/APTRANSCO
Member

FA & CCA (A/Cs)/APTRANSCO
Member

Dr V.S. Suryalekha
CGM/HRD &Plg/APTRANSCO
Member

CGM/Plg,PPA& RA/APEPDCL
Member

31/10/18
CGM/RAC/APSPDCL
Member

CE/IPC & Power Systems/APTRANSCO
Member Convenor

ORDER

on

True up for 2016-17

of

CSPDCL, CSPTCL, CSPGCL and CSLDC

and

Retail Tariff Order of CSPDCL for 2018-19

Chhattisgarh State Power Distribution Company Limited
[Petition No. 66/2017 (T)]

Chhattisgarh State Power Transmission Company Limited
[Petition No. 67/2017 (T)]

Chhattisgarh State Load Dispatch Centre
[Petition No. 68/2017 (T)]

Chhattisgarh State Power Generation Company Limited
[Petition No. 69/2017(T)]

Chhattisgarh State
Electricity Regulatory Commission, Raipur

CHHATTISGARH STATE ELECTRICITY REGULATORY COMMISSION
RAIPUR

Chhattisgarh State Power Distribution Co. Ltd.	.....	P. No. 66/2017(T)
Chhattisgarh State Power Transmission Co. Ltd	.....	P. No. 67/2017(T)
Chhattisgarh State Load Despatch Centre	.....	P. No. 68/2017(T)
Chhattisgarh State Power Generation Co. Ltd.	.....	P. No. 69/2017(T)

Present: **Narayan Singh, Chairman**
Arun Kumar Sharma, Member

In the matter of –

1. Chhattisgarh State Power Distribution Company Ltd. (CSPDCL) Petition for provisional true up for FY 2016-17 and determination of Tariff for FY 2018-19;

2. Chhattisgarh State Power Transmission Company Ltd. (CSPTCL) Petition for provisional true up for FY 2016-17;

3. Chhattisgarh State Load Despatch Centre (CSLDC) Petition for provisional true up for FY 2016-17;

4. Chhattisgarh State Power Generation Company Ltd. (CSPGCL) Petition for provisional true up for FY 2016-17.

ORDER

(Passed on March 26, 2018)

1. As per provisions of the Electricity Act, 2003 (hereinafter referred as 'the Act') and the Tariff Policy, the Commission has notified the Chhattisgarh State Electricity Regulatory Commission (Terms and Conditions for determination of tariff according to Multi-Year Tariff principles and Methodology and Procedure for determination of Expected revenue from Tariff and Charges) Regulations, 2015 (hereinafter referred as 'CSERC MYT Regulations, 2015') for determination of tariff for the Generating Company, Licensees, and Chhattisgarh State Load Despatch Centre (CSLDC).

2. This Order is passed in respect of the Petitions filed by the (i) Chhattisgarh State Power Distribution Company Ltd. (CSPDCL) for approval of provisional true up for FY 2016-17, and determination of tariff for FY 2018-19, (ii) Chhattisgarh State Power Transmission Company Ltd. (CSPTCL) for approval of provisional true up for FY 2016-17, (iii) Chhattisgarh State Load Dispatch Centre (CSLDC) for approval of provisional true up for FY 2016-17, and (iv) Chhattisgarh State Power Generation Company Ltd. (CSPGCL) for approval of provisional true up for FY 2016-17.

3. This Order is passed under the provisions of Section 32(3), Section 45, and Section 62 read with Section 86(1) of the Act. This combined Order is passed by the Commission on the four separate Petitions filed by CSPDCL, CSPTCL, CSLDC and CSPGCL, after having considered all the information and documents filed along with the said Petitions, the information submitted to the Commission after Technical Validation, and after having heard the applicant Companies, the consumers, their representatives and other stakeholders in the Public Hearing held by the Commission.

4. The Petitions were made available on the website of the Commission as well as the Petitioners. The Petitions were also available at the offices of the Petitioners. A public notice along with the gist of the Petitions was also published in the newspapers. Suggestions/objections were invited as per the procedure laid down in the Regulations. Further, the Commission conducted hearings at Raipur on the Petitions on March 6, 2018, March 7, 2018 and March 8, 2018. The Commission also convened a meeting with Members of the State Advisory Committee on January 19, 2018 for seeking their valuable suggestions and comments. Taking into account all the

suggestions/objections and after performing necessary due diligence on each of the issues, the Commission has finalised its views.

5. The Commission has undertaken the provisional true up for FY 2016-17 for CSPDCL, CSPTCL, CSLDC, and CSPGCL, in accordance with the provisions of the CSERC MYT Regulations, 2015 and based on the Provisional Accounts submitted by the Utilities. The final True-up for FY 2016-17 shall be undertaken after filing of True-up Petitions by Utilities based on audited Annual Accounts for FY 2016-17, subject to prudence check.

6. In the Multi-Year Tariff (MYT) Order passed on March 31, 2016, the Commission had approved the ARR and Tariff for the Control Period from FY 2016-17 to FY 2020-21 for CSPGCL, CSPTCL, CSLDC and CSPDCL, in accordance with the provisions of the CSERC MYT Regulations, 2015. Further, the Commission passed the Tariff Order for FY 2017-18 for CSPDCL on March 31, 2017. For CSPDCL, the total power purchase cost has been revised for FY 2018-19, based on the revised sales projections and energy requirement. Also, Non-Tariff Income for CSPDCL for FY 2018-19 has been revised based on provisional income earned in FY 2016-17.

7. The Revenue Gap/(Surplus) of CSPGCL, CSPTCL and CSLDC arising out of provisional True-up for FY 2016-17, along with corresponding carrying/holding cost, have been considered while computing the cumulative Revenue Gap/(Surplus) to be allowed for CSPDCL for FY 2018-19.

8. After applying the holding cost on the Revenue Surplus of CSPTCL for FY 2016-17 arising after provisional True-up, the total Revenue Surplus up to FY 2018-19 has been approved as Rs. 29.98 Crore. After applying the holding cost on Revenue Surplus of CSPGCL for FY 2016-17 arising after provisional true-up, the total Revenue Surplus up to FY 2018-19 has been approved as Rs. 279.52 Crore. After applying the holding cost on Revenue Surplus of CSLDC for FY 2016-17 arising after provisional true-up, the total Revenue Surplus up to FY 2018-19 has been approved as Rs. 1.26 Crore.

9. After applying the carrying cost on Revenue Gap of CSPDCL for FY 2016-17 arising after provisional true-up, the total Revenue Gap up to FY 2018-19 has been approved as Rs. 2357.60 Crore. The combined Revenue Gap/Surplus of CSPDCL, CSPTCL,

CSPGCL, and CSLDC for FY 2016-17 along with carrying/holding cost has been considered in the ARR of CSPDCL for FY 2018-19.

10. For CSPGCL, the ARR for FY 2018-19 was approved in the MYT Order dated March 31, 2016. The Commission in Tariff Order for FY 2017-18 dated March 31, 2017 has revised the Energy Charge Rate for CSPGCL's Generating Stations for FY 2017-18. The same energy charge rates are proposed to be continued for FY 2018-19. The Annual Fixed Cost (AFC) and Energy Charge Rate (ECR) for CSPGCL stations for FY 2018-19 have been approved by the Commission as under:

Thermal Power Stations

Sl.	Particulars	Units	FY 2018-19				
			KTPS	HTPS	DSPM	KWTPP	Marwa
1	Annual Fixed Cost	Rs. Crore	297.12	534.73	491.27	701.94	1871.72*
2	Energy Charge Rate (ex-bus power plant basis)	Rs/kWh	1.927	1.487	1.545	1.264	1.20*
3	Contribution to P&G	Rs. Crore	55.17	57.11	9.38	9.24	20.86

*AFC and ECR for Marwa TPP is Provisional

Hydro Power Station (Hasdeo Bango)

Sl. No.	Particulars	Units	FY 2018-19
1	Approved Annual Fixed Cost	Rs. Crore	25.97
2	Approved Net Generation	MU	271.26
3	Approved Tariff	Rs./kWh	0.957
4	Contribution to P&G	Rs. Crore	3.81

11. For CSPTCL, the Commission had determined the ARR of Rs. 993.46 Crore for FY 2018-19 in the MYT Order dated March 31, 2016. The Transmission Charge for FY 2018-19 shall be as under:

Sl.	Particulars	Units	FY 2018-19
1	ARR for CSPTCL	Rs. Crore	993.46
2	Less: Past year cumulative revenue surplus	Rs. Crore	29.98
3	Net Approved ARR	Rs. Crore	963.48
4	Monthly Transmission Charges for Medium-term and Long-term Open Access Consumers	Rs. Crore/month	80.29
5	Short-term Open Access Charges	Rs/kWh	0.3492

Further, Transmission Losses of 3.22% for the energy scheduled for transmission at the point or points of injection shall be recoverable from Open Access customers.

12. For CSLDC, the Commission had determined the ARR of Rs. 14.79 Crore for FY 2018-19 in the MYT Order dated March 31, 2016. System Operation Charges are approved as Rs. 11.83 Crore and Intra-State Market Operation Charges as Rs. 2.96 Crore for FY 2018-19.

13. CSPDCL has filed revised ARR for FY 2018-19 of Rs. 11,422.33 Crore. The Commission after prudence check and due scrutiny has approved the ARR at Rs. 11,386.14 Crore.

14. The State Government subsidy has not been taken into account while approving the ARR of CSPDCL for FY 2018-19.

15. CSPDCL, in its Petition, has sought approval for cumulative Revenue Gap of Rs. 2,584.89 Crore for FY 2018-19. The Commission after prudence check and scrutiny has arrived at a cumulative Revenue Gap of Rs. 2,046.83 Crore for FY 2018-19 after adjusting the cumulative Revenue Gap/(Surplus) of CSPDCL, CSPGCL, CSPTCL, and CSLDC. Based on the above, the Commission has approved the revised Tariff Schedule.

16. The Commission has made the following changes in this Order as compared to the Tariff and Tariff categories approved in the previous Tariff Order:

    a) The tariff for most of the consumer categories has been reduced in order to adjust the Revenue Surplus arising after considering the cumulative Revenue Gap/(Surplus).

    b) The tariffs for all consumer categories have been approved in such a manner that the cross-subsidies are reduced gradually, and the tariffs for most of the consumer categories is within the band of ±20% of Average Cost of Supply, as stipulated in the Tariff Policy notified by the Government of India.

    c) A new sub-category has been created under LV 4 – LV Agriculture Allied Activities named as *LV-4.1 (A): up to 25 HP*. Similarly, a new sub-category under LV 5 – LV Industry has also been created and named as *LV 5.2.3- LV Other Industries (Above 100 HP up to 150 HP)*.

d) In order to incentivise consumption during non-peak hours and also to increase the consumption of surplus power available in the State, Time of Day Tariff (TOD) has been revised. For consumers covered in TOD tariff, the Energy Charges in the Peak Period shall be billed at 120% of normal rate of Energy Charge instead of existing level of 115%. Similarly, during Non-Peak Period, Energy Charges shall be billed at 75% of normal rate of Energy Charge instead of existing level of 90%.

e) For HV-4 Steel Industries, the limit of Load Factor for 33 kV and 11 kV supply sub-categories has been increased to 25% from the existing level of 15%, for exclusive Rolling Mills consumers.

f) A discount of 5% on monthly electricity bill (Fixed Charges + Energy Charges) has been given to Dispensaries, Clinics and Hospitals other than Government Hospitals.

g) To promote cashless transactions, all banking charges/online payment charges for payment through net banking or debit/credit cards, have been waived off for consumers. Such charges shall be borne by CSPDCL.

h) For ready reference, the Tariff Schedule applicable in reference to this Order is appended herewith as **Schedule**.

17. The Order will be applicable from 1st April, 2018 and will remain in force till March 31, 2019 or till the issue of next Tariff Order, whichever is later.

18. The Commission directs the Companies to take appropriate steps to implement the Tariff Order.

SD/-	**SD/-**
(ARUN KUMAR SHARMA)	**(NARAYAN SINGH)**
MEMBER	**CHAIRMAN**

CHHATTISGARH STATE ELECTRICITY REGULATORY COMMISSION

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Present: Narayan Singh, Chairman

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4. Chhattisgarh State Power Generation Company Ltd. (CSPGCL) Petition for provisional true up for FY 2016-17.

CORRIGENDUM ORDER

(Dated 11.04.2018)

The Commission has issued order in the above petitions on 26/03/2018. In the order, an inadvertent typographical error has been noticed in case of tariff schedule for low voltage consumers availing supply on three phase 400 V. The maximum demand permitted at three phase 400 volt is 112.5 kW or 150 HP, accordingly in the tariff schedule for LV Consumers wherever 75kW is appearing, shall be read as 112.5 kW.

Sd/-
(ARUN KUMAR SHARMA)
MEMBER

Sd/-
(NARAYAN SINGH)
CHAIRMAN

LIST OF ABBREVIATIONS

Abbreviation	Description
A&G	Administrative and General
AMC	Annual Maintenance Contract
APTEL	Hon'ble Appellate Tribunal of Electricity
ARR	Annual Revenue Requirement
CERC	Central Electricity Regulatory Commission
CGS	Central Generating Stations
COD	Date of Commercial Operation
CSEB	Chhattisgarh State Electricity Board
CSERC	Chhattisgarh State Electricity Regulatory Commission
CSPDCL	Chhattisgarh State Power Distribution Company Limited
CSPGCL	Chhattisgarh State Power Generation Company
CSPHCL	Chhattisgarh State Power Holding Company Limited
CSPTCL	Chhattisgarh State Power Transmission Company Limited
CSPTrCL	Chhattisgarh State Power Trading Company Limited
CWIP	Capital Work in Progress
DPS	Delayed Payment Surcharge
DS	Domestic Service
FY	Financial Year
GCV	Gross Calorific Value
GFA	Gross Fixed Assets
GoCG	Government of Chhattisgarh
GoI	Government of India
HT	High Tension
kcal	kilocalorie
kg	kilogram
kV	kilovolt

Abbreviation	Description
kVA	kilovolt-ampere
kW	kiloWatt
kWh	kilowatt-hour
MAT	Minimum Alternative Tax
ml	Millilitre
MMC	Monthly Minimum Charges
MT	Metric Tonnes
MU	Million Units
MYT	Multi Year Tariff
NTI	Non-Tariff Income
O&M	Operations and Maintenance
PLF	Plant Load Factor
PLR	Prime Lending Rate
PPA	Power Purchase Agreement
R&M	Repair and Maintenance
RoE	Return on Equity
Rs	Rupees
SBI	State Bank of India
SCADA	Supervisory Control and Data Acquisition
SERC	State Electricity Regulatory Commission
SLDC	State Load Dispatch Centre
SLM	Straight Line Method
T&D Loss	Transmission and Distribution Loss
UI	Unscheduled Interchange

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1 BACKGROUND AND BRIEF HISTORY

1.1 Background

The Chhattisgarh State Electricity Board (CSEB) was restructured by the State Government in pursuance of the provisions of Part XIII of the Electricity Act, 2003. The Government of Chhattisgarh (GoCG) vide notification No. 1-8/2008/13/1 dated December 19, 2008, issued the CSEB Transfer Scheme Rules, 2008 with effect from January 1, 2009. The erstwhile CSEB was unbundled into five different Companies, viz., Chhattisgarh State Power Generation Company Limited (CSPGCL), Chhattisgarh State Power Transmission Company Limited (CSPTCL), Chhattisgarh State Power Distribution Company Limited (CSPDCL), Chhattisgarh State Power Trading Company Limited (CSPTrCL), and Chhattisgarh State Power Holding Company Limited (CSPHCL). The assets and liabilities of the erstwhile CSEB have been allocated to the successor Companies w.e.f. January 1, 2009 according to the provisions of the CSEB Transfer Scheme Rules, 2010. The validity of the present Transfer Scheme is extended till December 2018.

1.2 The Electricity Act, 2003, Tariff Policy and Regulations

Section 61 of the Electricity Act, 2003 (herein after referred as the EA, 2003 or the Act) stipulates the guiding principles for determination of tariff by the Commission and mandates that the tariff should progressively reflect the cost of supply of electricity, reduce cross subsidy, safeguard consumers' interest and recover the cost of electricity in a reasonable manner. This Section also stipulates that the Commission while framing the Tariff Regulations shall be guided by the principles and methodologies specified by the Central Electricity Regulatory Commission for determination of the tariff applicable to generating companies and transmission licensees.

Section 62 of the EA, 2003 stipulates that the Commission shall determine the tariff for:

- Supply of electricity by a Generating Company to a Distribution Licensee;
- Transmission of electricity;
- Wheeling of electricity; and
- Retail sale of electricity.

The Tariff Policy notified by the Government of India in January 2006, as well as the amended Tariff Policy notified in January 2016, provides the framework to balance the conflicting objectives of attracting investments to ensure availability of quality power and protecting the interest of consumers by ensuring that the electricity tariffs are affordable.

1.3 Procedural History

The Commission notified the Chhattisgarh State Electricity Regulatory Commission (Terms and Conditions for determination of tariff according to Multi-Year Tariff principles and Methodology and Procedure for determination of Expected revenue from Tariff and Charges) Regulations, 2015 (hereinafter referred to as MYT Regulations, 2015) on September 9, 2015. Based on the above Regulations, the Commission issued the MYT Order dated April 30, 2016 for CSPGCL, CSPTCL, CSLDC and CSPDCL for the Control Period from FY 2016-17 to FY 2020-21.

CSPDCL filed its Petition on December 11, 2017 for approval of provisional true up for FY 2016-17, and determination of retail tariff for FY 2018-19, which was registered as Petition No. 66 of 2017 (T). CSPTCL filed the Petition for approval of provisional true up for FY 2016-17 and determination of Transmission Tariff for FY 2018-19 on December 12, 2017, which was registered as Petition No. 67 of 2017 (T). CSLDC filed the Petition for approval of provisional true up for FY 2016-17 on December 12, 2017, which was registered as Petition No. 68 of 2017(T). CSPGCL filed the petition for approval of provisional true up for FY 2016-17 for Thermal Generation Stations and Hydro Electric Plants on December 28, 2017, which was registered as Petition No. 69 of 2017 (T).

In this Order, the Commission has undertaken the provisional true up for FY 2016-17 for CSPGCL, CSPTCL, CSLDC and CSPDCL in accordance with the provisions of the MYT Regulations, 2015 and determination of revised ARR and Tariff for CSPDCL for FY 2018-19. Utilities have submitted that due to introduction of new accounting principles its audited accounts for the FY 2016-17 are under preparation and hence Audited Accounts from the Utilities are not available. The Commission in this order has undertaken the provisional true-up based on the available provisional accounts. The Hon'ble APTEL in OP.NO.1 of 2011 has directed the state Commission to ensure that the Annual Performance review, true-up of past expenses has to be carried out on year to year basis.

1.4 Admission of the Petition and Hearing Process

The Petitions filed by CSPTCL, CSPDCL and CSLDC were registered on December 28, 2017 and CSPGCL Petition was registered on December 29, 2017.

The Companies were directed to publish the abridged version of the Petition in Hindi and English newspapers for inviting comments / objections / suggestions from all the stakeholders. The Petitions were made available on the website of the Commission as well as on the Petitioners' websites. As required under Clause 21 of the CSERC (Details to be furnished by licensee etc.) Regulations, 2004, notices inviting suggestions /comments/objections from the stakeholders on the above proposals were published in the leading newspapers namely, Dainik Bhaskar, Nav Bharat, The Hitavada, Patrika, Central Chronicle, The Pioneer, and Hari Bhoomi on December 30, 2017 and December 31, 2017.

A period of twenty-one (21) days was given for submission of written objections and suggestions by the public. The Companies were also directed to submit written replies to the Commission with copies endorsed to the objectors.

In order to have better clarity on the data submitted by the Petitioners and to remove inconsistency in the data, the first Technical Validation Sessions (TVS) were held on January 17, 2018 for CSPGCL, CSPTCL and CSLDC and on January 18, 2018 for CSPDCL with the petitioners. Similarly, the second TVS for CSPGCL and CSPDCL was held on March 5, 2018 with the Petitioners. During the TVS, additional information required for processing of the Petitions was sought from the Petitioners. The Petitioners submitted the additional information sought in the TVS. Notices under Section 94(2) of the Act were published in the following newspapers of the State for hearings:

Newspaper Name	Date of Notice Published
Central Chronicle, Nav Bharat, Hari Bhoomi, Nayi Duniya, Desh Bandhu	March 1, 2018
Patrika, Dainik Bhaskar, The Hitavada, Ambika Vani and Dandakarnaya	February 20, 2018

The objections and suggestions from stakeholders were received on the Petitions filed by CSPGCL, CSPTCL, CSPDCL and CSLDC. The list of persons who filed the written submissions is annexed as **Annexure 1**.

The hearing was held on March 6, 7 and 8, 2018 in the Commission's office at Raipur. The Commission has ensured that the due process as contemplated under the law to ensure transparency and public participation was followed at every stage and adequate opportunity was given to all the persons to offer their views. The list of persons who submitted comments during the Hearing is annexed as **Annexure 2A**.

The issues raised by the stakeholders along with the response of the Petitioners' and views of the Commission are elaborated in Chapter 2 of this Order.

1.5 State Advisory Committee Meeting

A copy of the abridged Hindi and English version of the Petitions were also sent to all the members of the State Advisory Committee of the Commission for their comments.

A meeting of the State Advisory Committee was convened on January 19, 2018 to discuss the Provisional True-up Petition for FY 2016-17 and seek inputs from the Committee. CSPGCL, CSPTCL, CSLDC and CSPDCL gave presentations in the meeting on the salient features of their Petitions. Various aspects of the Petitions were discussed by the Members of the Committee in the meeting. The list of the members who participated in the meeting in annexed as Annexure 2B. The following suggestions and Objections were made/raised:

1. Members raised the following questions regarding CSPGCL's Provisional True-up Petition for FY 2016-17:
    a. Why the Plant Availability Factor (PAF) for KTPS plant has reduced against that approved in the MYT Order?
    b. Since, the KTPS plant was on retirement stage and hence, the PAF target was set low by the Commission in the previous MYT Order, even then why there has been such lower achievement?
    c. Has the loss/gain because of the lower performance mentioned above been accounted in the ARR?
    d. Commission should levy appropriate penalty as per the Regulations for the PAF being lower than that approved by the Commission.
2. SAC Members raised the following questions regarding the Provisional True-up Petition for FY 2016-17 filed by CSPTCL and CSLDC:
    a. Why CSPTCL is not showing the actual targets of setting up new transmission lines/substations against that achieved in FY 2016-17?

What was the actual target given to CSPTCL and what is achieved, and appropriate rationale for under-achievement?

b. Why there is an increase in Employee expenses and A&G Expenses for FY 2016-17?

c. Repair and Maintenance expenses, which improves the services to the consumers and for the betterment of the infrastructure, has been under-utilised as compared to the amount approved by the Commission. The amount approved by the Commission in its MYT Order has not been incurred, and instead there has been a higher expenditure on Employees and A&G.

3. SAC members raised the following questions to CSPDCL on its Petition for Provisional True-up for FY 2016-17 and Proposal for revised ARR and Tariff for FY 2018-19:

a. Why the audited accounts for FY 2016-17 have not been submitted yet, when it is already 7 months after the time it should be submitted? Commission should look into the rationale and reasoning for such delay and the provision in the Regulations of submitting the provisional accounts should not be taken for granted.

b. CSPDCL is selling power from Marwa to Telangana, which is basically a trading business and hence, any loss on this account should not be included in the overall losses of the system. T&D losses booked for the State of Chhattisgarh should be for power supplied to the consumers within the State. Such losses due to trading have been accounted in the past, and hence the Commission need to take cognizance of the fact that such losses are not accounted and consumers of Chhattisgarh do not pay for it.

c. CSPDCL has proposed to increase the rebate to the Steel Industries where the Industries running on Load Factor less than 60% should be given rebate of 20%, as against the existing rebate of 15%. Why is there no rebate or incentive available to small and medium scale industries?

d. Commission needs to consider whether the Regulations allow the Distribution Company to alter the cross-subsidy on its own.

e. CSPDCL collects the Consumer Security Deposit every year. Is there a separate fund where this amount is collected? Does the consumer receive the interest against such deposit?

f. If there is a short circuit or overloading in some transformer, and because of that there is case of over voltage for some consumer, and any appliance of the consumer gets damaged, there should be some provision where the CSPDCL should give compensation to the consumer whose appliance got damaged.

4. General comments and suggestions made by the Members of the State Advisory Committee are as follows:

a. All the orders and proceedings of the Commission should be in both the languages and which is simple and easy and could be easily understood by the common people. Language should not be a barrier to the information passed on to the consumers.

b. There should be a mobile based application, which automatically generates the electricity bill and the payment can be made online.

c. Rice production this year is very low in the State and therefore, sale of rice in the market is low. Raw rice, which is the raw material for the Rice mills, will be reeling under pressure for coming 6-7 months. Because of less availability of rice in the mills, more than 1500 rice mills will get affected and there would be very low to zero operations for such mills. In such case it is requested to the Commission that there should be some relief to the Fixed Charges paid by the Mills, when no power is consumed till the situation get backs to normal. It should be considered as a natural disaster and there are provisions in the Regulations which needs to be considered.

d. It is requested to the Commission to keep all the Rice Mills under Agriculture and Allied Category, as the industry is based on the agriculture production.

The above issues raised by the members of SAC were deliberated during the meeting. The concerns of the members of the SAC have been appropriately addressed in this order.

2 HEARING PROCESS, INCLUDING THE COMMENTS MADE BY VARIOUS STAKEHOLDERS, THE PETITIONERS' RESPONSES AND VIEWS OF THE COMMISSION

2.1 Objections on Provisional True-up for FY 2016-17 of CSPDCL

2.1.1 Issue of Provisional Balance Sheet and Mismatched Data

The objector submitted that:

i. The True-up Petition filed by CSPDCL for FY 2016-17 seeks recovery of huge standalone deficit of Rs. 841.16 Crore but is not supported by Statutory Audit Report and authentic data, hence, final True-up cannot be carried out by the Commission on the basis of Provisional Accounts as per prevailing practice and Regulations.

ii. Such Provisional True-up may be useful just to draw the guiding principles and to have glimpses of the state of affairs of CSPGCL, CSPTCL and CSPDCL, and in absence of much reliability of data, any Revenue Gap/(Surplus) cannot be passed on to the Retail Tariff of subsequent years.

iii. Moreover, Provisional True-up also cannot be done efficiently and correctly, as information and data/actual results provided in the present Petitions varies significantly from the Provisional Accounts/statistics, R-15 formats and other Petitions filed by CSPTCL, CSPGCL and CSLDC. CSPDCL has itself accepted that only in Power Purchase Cost, a huge amount of Rs. 422.70 Crore is not reconciling with accounts.

iv. CSPDCL was directed by the Commission to submit Quarterly Report on reconciliation of Power Purchase Bills, hence, such a huge amount remaining unreconciled is quite surprising, and also reveals the status of compliance of various directives issued by the Commission and state of affairs of un-audited Accounts.

v. In response to the clarification and additional submission sought by the Commission vide communication dated January 5, 2018, CSPDCL vide its reply dated January 19, 2018, has stated as under for several issues:

"*Due to introduction of new accounting principles, its audited accounts for the year FY2016-17 are under preparation. It has to undergo a further stage of statutory audit thereafter. Under such circumstances, it is difficult to provide*

the details sought under this para. Commission may kindly like to provide additional time for this purpose."

vi. The case of the other Petitioners is also no better, hence, CSPDCL, CSPTCL, CSPGCL and CSLDC should be directed to submit Statutory Audit Report along with reliable data and information for undertaking True-up for FY 2016-17. Till such time, passing through any suggestive loss/revenue shortfall of FY 2016-17 for recovery in FY 2018-19 shall not be judicious and justifiable.

Petitioner's Reply

CSPDCL submitted that it has already detailed in the Petition itself that the delay in finalization and subsequent audit of accounts is primarily attributable to introduction of new financial accounting standards.

Further, the provisional true-up has been filed on the basis of available accounts in line with the provisions of MYT Regulations, 2015 and CSPDCL has requested the Commission to kindly consider and approve the same. CSPDCL added that the Audited Accounts for FY 2016-17 will also be submitted to the Commission along with the Petition for final True-up along with relevant supporting justification/documents in due course of time as and when the same is available.

Commission's View

The Commission has undertaken the True-up for FY 2016-17 based on the provisional Accounts, in accordance with Regulation 10.3 of the CSERC MYT Regulations, 2015, which specifies as under:

"10.3. In case the audited accounts are not available, the provisional truing up shall be done on the basis of un-audited/ provisional account and shall be subject to further final truing up, as soon as the audited accounts is available."

The Commission is of the view that as the Regulations provide for further final truing up once the Audited Accounts are available, the impact, i.e., Revenue Gap/(Surplus) on account of provisional true-up should be passed on in the Tariff of FY 2018-19, in order to avoid the incurrence of carrying/(holding) cost on such amounts. The differential amount, on account of variation between the Provisional Accounts and Audited Accounts shall be adjusted at the time of final truing up. Unless the Revenue Gap/(Surplus) on account of provisional true-up is passed through in FY 2018-19, the entire process of provisional Truing up shall be without any meaning.

However, the Commission agrees that the Power purchase bills are not being reconciled timely. Power purchase amounts to a largest portion of the ARR and it has a significant impact on the ARR of the licensee. It is pertinent to note that the VCA mechanism is in place whereby bi-monthly power purchase cost of the licensee has to be factored in for computation of VCA. It is surprising that how the power purchase cost is also not being reconciled. Accordingly, the Commission is of the view that carrying cost arising due to negligence of the licensee should not be passed on to the consumers of the state during the final true-up.

2.1.2 Lack of Information/data on basic function of Tariff Reforms

The objector submitted that CSPDCL has submitted category-wise number of consumers, their load and consumption, but has not submitted the category-wise revenue realization and Average Billing Rate (ABR), which is very important to determine the direction and pace of Tariff Reforms. The reforms in Retail Tariff Structure initiated by the Electricity Act, 2003 (EA 2003) and stressed by the Tariff Policy ensure implementation of basic guiding principles such as allowance of reasonable revenue for satisfactory working, simultaneously ensuring competitiveness and efficiency, retail tariff to be brought progressively within +/-20% of the Average Cost of Supply (ACoS), and cross-subsidies to be reduced gradually. However, the submission of unreliable, suspicious, and mismatched data presently submitted by the Petitioners do not truly permit adherence to all the above basic guidelines. Hence, the Petitioners should be directed to submit reliable and matching data with proper references for a prudent True-up.

Petitioner's Reply

CSPDCL submitted that R15 with consumer category and slab-wise revenue along with the Average Billing Rate (ABR) for LT as well as HT consumers for FY 2016-17 has already been submitted to the Commission. CSPDCL added that it adheres to complete professional ethics and transparency in its operations and professional transactions. It has submitted all available data points sought by the Commission so far and shall also cooperate with the Commission in every possible way, abiding by all Rules and Regulations. Further, to bring in more authenticity to the information, same is now being captured in SAP modules across various levels in the organization so as to eliminate human errors in information management.

Commission's View

The Commission has analysed the Petition submitted and after scrutinizing the same, asked CSPDCL to submit additional information as and when required. It is observed from the R-15 data that, the Agriculture consumers were not been billed as per the Energy Charges approved by the Commission. The licensee was asked to justify the reason for not recovering the revenue from the agriculture consumers as per the applicable tariff. The licensee had submitted that the revenue corresponding to the applicable tariff could not be recovered from Agriculture Consumers who adopted for flat rate prescribed by the State Govt. The Commission is of the view that the licensee should have recovered the revenue corresponding to the energy sales as per the approved rates. Accordingly, the Commission has considered the unrecovered revenue from Agriculture consumers for FY 2016-17 while computing the surplus deficit.

2.1.3 Support from State Government under UDAY Scheme

Under the tri-partite Memorandum of Understanding (MoU) signed between Government of India, Government of Chhattisgarh, and CSPDCL under the Ujwal DISCOM Assurance Yojana (UDAY) [UDAY MoU] on January 25, 2016, it was agreed that the State Government shall take over the future losses of CSPDCL in a graded manner and shall fund 5% of the loss of 2016-17 in 2017-18.

CSPDCL has projected a Stand-alone Deficit of Rs.841.16 Cr during FY 2016-17 but has proposed to load all such revenue deficit on the consumers without making provisions as agreed under UDAY Scheme and hence, the Commission is requested to ensure that the provision of 5% of such deficit (approx. Rs. 42.06 Cr) should be supported by the State Government as a grant under the UDAY scheme.

Similarly, under the UDAY MoU, the State Government has also agreed to take over the debts of CSPDCL as per the following schedule:

Year	Total Debt taken over	Amount of Grant (Rs. Crore)	Timeline for such Grant	Actual release of Grant as per CSPDCL (Rs. Crore)
2015-16	50% of Total Debt	870.12	Last quarter of 15-16	870.12 (True-up Petition 15-16)
2016-17	25% of Total Debt	435.06	End of 2nd quarter of 16-17	Nil (True-up Petition 16-17)

From the above it is clear that CSPDCL has not accounted for huge grant of Rs.435.06 Crore as per the UDAY Scheme, and thereby computed higher Interest Cost, Depreciation and Return on Equity.

Though CSPDCL has submitted that it has not received any Grant towards repayment of loans/debts under UDAY in FY 2016-17, it has not submitted the reasons/ reminders/efforts taken by it and the stand of State Government to fulfill its commitment.

The Commission is requested to consider grant of Rs. 435.06 Crore while determining Interest Cost, Depreciation and Return on Equity for FY 2016-17, and if in any case, CSPDCL has not received such committed grant from the State Government, reminders can be sent for an early release.

Petitioner's Reply

CSPDCL would like to submit that it has already detailed the reasons for consideration of T&D losses for 33 kV and below network as per the Regulations, in the Petition itself. It is absolutely wrong to state that CSPDCL is questioning the integrity of either the State Government or Central Government or the Commission. Such comments are unwarranted and CSPDCL requests the stakeholder to refrain from making such comments in this forum.

CSPDCL's current submissions in the Petition flow from Section 108 of the Electricity Act 2003, as reproduced below:

Directions by State Government: ----

"(1) In the discharge of its functions, the State Commission shall be guided by such directions in matters of policy involving public interest as the State Government may give to it inwriting.

(2) If any question arises as to whether any such direction relates to a matter of policy involving public interest, ***the decision of the State Government there on shall be final."***

Regarding the consideration of commitments by Parties of UDAY MoU other than CSPDCL, CSPDCL would like to highlight that all such actions undertaken by other Parties are duly factored in by CSPDCL in its accounts and the same information is also submitted to the Commission for passing on the benefit of same to consumers at large.

Accordingly, CSPDCL had considered the grant of Rs. 870.12 Crore in FY 2015-16 as approved and released by Government of Chhattisgarh. Further, for the amount corresponding to takeover of loan and transfer of equivalent grant of Rs 435.06 Crore along with amount corresponding to takeover of losses for FY 2016-17, as the State Government has decided not transfer any such amount in FY 2016-17 to CSPDCL, such decision is final and accordingly could not be factored in by CSPDCL, which is in line with the provisions of the Act as well as accounting principles. CSPDCL requested the Commission to consider the submissions of CSPDCL and any further support from Government of Chhattisgarh (GoCG) only on actual disbursement by GoCG and subsequent receipt by CSPDCL.

Commission's View

For the purpose of the provisional True up, the Commission has accepted CSPDCL's submission that no conversion of loan to Grant has happened in FY 2016-17. However, the same is subject to final true-up, and CSPDCL should submit the entire correspondence with the State Government, and the State Government's justification for not providing the necessary Grant support as committed under the UDAY MoU.

2.1.4 CSPDCL's request to revise its Equity Base from FY 2011-12 to FY 2015-16

The objector submitted that CSPDCL has submitted that the Commission has disregarded its own MYT Regulations for computation of permissible equity for current as well as future years on account of Consumer Contribution and Grants, and has therefore, requested the Commission to rectify the error and approve the corrected capital structure from FY 2011-12 to FY 2015-16. CSPDCL has accordingly revised the capital structure and increased Gross Fixed Assets for the above years and claimed increased amounts under interest on Loan, Depreciation and Return on Equity for FY 2011-12 to FY 2015-16 along with carrying cost.

The objector submitted that the Truing-up of Aggregate Revenue Requirement (ARR) of FY 2011-12 to FY 2015-16 has been undertaken by the Commission in the following Orders:

Truing-up of Year	Date of Final Order
FY 2011-12	12.06.2014
FY 2012-13	12.06.2014
FY 2013-14	23.05.2015
FY 2014-15	30.04.2016
FY 2015-16	31.03.2017

CSPDCL had ample opportunity to agitate the issue by filing a Review Petition before the Commission within 60 days from the date of Order or by filing an Appeal before the Hon'ble Appellate Tribunal for Electricity (APTEL) within 45 days from the date of Order but CSPDCL failed to do so, although in several other issues it opted to agitate before the Commission/APTEL. Hence, CSPDCL cannot be allowed to enjoy unlimited time to agitate this issue now. After substantial delay from the stipulated period to file a Review Petition, the issue does not legally qualify to be addressed by the Commission.

Further, it is shocking that CSPDCL wants to recover interest, depreciation and return on investment made from Consumers' Contribution and Grant given by the Government, from the consumers. If it is allowed by the Commission, then effectively, consumers would be required to pay interest on their own money, which shall be entirely new financial concept.

Considering the above reasons and law-points involved, the objector requested the Commission to reject CSPDCL's plea to re-assess its equity base for the period from FY 2011-12 to FY 2015-16 and to disallow the claim of Rs.120.96 Crore lodged by it. The objector requested the Commission to evaluate GFA and Interest on Loan, Depreciation and Return on Equity for FY 2016-17 without considering the above said claim.

The objector added that if the Commission decides to re-open the issue of equity base of CSPDCL after a lapse of about 4 years, the case of interest on working capital/security deposit and similar other cases are also genuinely required to be re-opened in the interest of justice where consumers have suffered huge loss of money without any lapse or fault on their part.

Petitioner's Reply

CSPDCL submitted that during the course of preparation of this Tariff Petition, it was discovered that the capital structure considered for the purpose of CSPDCL's equity is understated due to the reason that previous Tariff Orders were not in accordance with the terms of respective MYT Regulations. The arguments of the Objectors are baseless and irrelevant under the facts and circumstances of the present case, for the reason given below:

a) APTEL in the matter of Lafarge India Pvt. Ltd. v/s CSERC & another in Appeal No. 127 of 2013 vide its Order dated 13-03-2015, ruled that the provisions of Limitation Act, 1963 does not apply to the matters pending

before State Electricity Regulatory Commissions and Central Electricity Regulatory Commission.

b) The correction of capital structure is flowing since FY 2011-12 wherein the wrong computations were done for the first time and thereafter occurred on year to year basis, as it continued to refer the same capital structure as base and computation methodology for subsequent years. During the course of preparation of instant Tariff Petition, its anomaly has been discovered by the Petitioner and cause of action discovered in FY 2011-12 needs to be corrected and only after that the Petitioner would be able to get its correct claim. CSPDCL's claim relies upon the principles of law determined by the Hon'ble High Court of Calcutta in the matter of Sanskar Dastidar V/s Banjulav Dastidar, that

"Injury that continued thereafter was not continuation of cause of action but continuation of sufferance or damage resulting from the cause of action. Cause of action continued till date, which was admittedly within three years of filing written statement setting up counter claim. Held that counter claim was not barred by limitation".

c) That in the stated case of CSPDCL, since the cause of action has first time arrived in the Tariff order of earlier years and continued till now leading to understatement of equity structure and causing two tier injuries, i.e., one-time claim of Rs. 120.96 crore as well as recurring understatement for future years.

d) That while error/mistake in the capital structure is sought to be rectified for the first time in the current Petition, the correction is being sought from FY 2011-12 onwards, i.e., from the Financial Year when the error appeared for the 1st time and subsequently perpetuated to future years. The correction of this mistake/error will eventually impact the trued-up revenue/gap surplus of the relevant years. CSPDCL requested the Commission to consider and approve the rectification of this error.

e) Also, the carrying cost now claimed is nothing but the time value of the money, which otherwise would have been available with the Petitioner had the error/mistake in capital structure not been there in the first place itself at the time of true-up of respective years, which flows from the Judgement dated 9th October 2015 in Appeal No. 308 of 2013, wherein the Hon'ble APTEL ruled as under:

"The Revenue Gap/Surplus are decided by the State Commission after hearing the Appellant. ***The calculation of Interest on surplus/carrying cost is only a mathematical calculation based on the principle of time value of money*** *and hence there is no violation of principle of natural justice".*

Commission's View

The Commission's detailed views and ruling on CSPDCL's request for restatement of the capital structure for FY 2011-12 to FY 2015-16 and related claims for increased amounts under interest on Loan, Depreciation and Return on Equity along with carrying cost, are elaborated in Chapter 6 of this Order.

2.1.5 Applicability of Distribution Losses agreed under UDAY Scheme

As per the CSERC MYT Regulations, 2015, the Distribution Loss trajectory for 33 kV and below system for CSPDCL for each year of the Control Period has been specified as under:

FY 2016-17 - 22.0%

…

FY 2018-19 - 20.0%

…

CSERC MYT Regulations (1st Amendment) effective from April 1, 2016 introduces the following proviso in Clause 71.3 of the Principal Regulations -

"Provided that if the State Utility enters into an agreement with Government of India and/or Chhattisgarh Government and energy loss trajectory committed in this agreement is contrary to that as specified in this regulation, the energy loss trajectory agreed under the agreement shall prevail over the energy loss specified in this Regulations."

Under the UDAY MoU, the Distribution Losses have been agreed at significantly lower levels, as reproduced below:

"1.3 (c) The CSPDCL shall endeavor to reduce AT&C Losses from 22.50% in FY2014-15 to 15% by FY2018-19 as per the following trajectory:

Year	2015-16	2016-17	2017-18	2018-19
AT&C Loss	21.00	18.93	18.00	15.00

CSPDCL in the present Petition has stated that the MoU cannot be recognized or accepted as an Agreement, and hence, the conditions/undertakings of UDAY do not fall within the scope of 1st Amendment to the CSERC MYT Regulations 2015. Accordingly, CSPDCL has not considered the targets specified under UDAY for computation of incentives/penalties for Distribution Losses.

The objector submitted that it is clear from the first amendment to the CSERC MYT Regulations, 2015 that the targets specified under the UDAY MoU shall prevail over the targets specified in the MYT Regulations. The amendments were brought in at a much later date after signing the UDAY MoU, and CSPDCL never agitated against the said provision earlier and hence, the intentions of CSPDCL are quite questionable.

The objector submitted that legally a MoU is also a type of Agreement although with relaxed provisions and following are the basic similarities/differences between the two:

a) An Agreement refers to concordance between legally competent parties, which is generally negotiated. Conversely, MoU is a type of Agreement between legally competent parties, which is non-binding in nature.

b) A MoU is referred to as a written legal document, which completely describes the principles of an arrangement between the two or more Parties forming a bilateral/ multilateral Agreement duly signed by the Parties.

c) A MoU lacks legal enforceability, however, if any one of the Parties has done anything against the MoU and due to this the other Party has suffered any loss, then the aggrieved Party has the right to recover loss because the Parties are bound by estoppel.

d) The elements of an Agreement are Offer and Acceptance while the elements of a MoU are Offer, Acceptance, Intention, and Consideration.

e) An Agreement is of binding nature, whereas a MoU is binding upon the Parties if the MoU is signed in exchange for monetary consideration.

The objector submitted that while going through the MoU entered by CSPDCL with the Government of India and Government of Chhattisgarh under UDAY Scheme and its above said submissions, it was observed that the denial of CSPDCL to fulfill the objectives and target agreed under UDAY scheme raises serious questions on the intentions, reliability and credibility towards the reforms initiated under the EA 2003.

It is well understood that when the agreed MoU is silent on any penal provisions against total/partial failure towards achieving the defined objectives, CSPDCL is bound by the estoppel and its written acceptance towards the terms and conditions of the scheme. The rule of estoppel is codified in Section 115 of the India Evidence Act, 1872.

Intermittent relaxation of the target for reduction in AT&C Losses permissible under the MoU is a matter of consideration amongst the affected Party/Parties of the said MoU and since the said target is required to be achieved in its finality, this cannot be pleaded as ground for relaxation before the Commission.

The objector submitted that from the above submission of CSPDCL in the present Petition, it seems that it is neither confident of achieving the agreed targets nor does it have confidence in the Central and State Governments towards fulfillment of their respective commitments as per MoU. In this manner, CSPDCL is expressing lack of confidence in its owner, since it is a State-owned company.

The objector submitted that CSPDCL has submitted that it will not be prudent to link the target of AT&C Losses agreed under the UDAY MoU and trajectory of Energy Loss for 33 kV and below system specified by the Commission. This is technically not acceptable since the Distribution Loss for 33 kV and below is a part of AT&C Losses and any agreed target on AT&C Losses will automatically have impact on the determination of Distribution Losses.

Considering all above reasons and law-points involved, the objector requested the Commission to reject CSPDCL's prayer for not considering the AT&C Loss agreed by it under UDAY Scheme while allowing distribution losses at 33 kV and below for FY 2016-17, and also to reject the claim of incentive (share of gain) on account of reduction in Distribution Losses.

Petitioner's Reply

CSPDCL submitted that it has raised the claim towards distribution losses as per the MYT Regulations, 2015 and its amendments. In the present case, the UDAY document is a tripartite understanding wherein other than CSPDCL, GoCG and Central Government are the signatories. In this context, the settled position of law regarding Memorandum of Understanding (MoU) as ruled by the Hon'ble Supreme Court in the matter of Monnet Ispat & Energy Ltd. v/s Union of India and others in Civil Appeal No. 3285 of 2009 on 26-07-2012 is that "*it is true that by the MoU entered into between the State Government and Monnet certain commitment were*

made by the State Government ***but firstly, such MoU is not a contract as contemplated under Article 299 (1) of the Constitution of India*** *and secondly in granting of Mining lease of a property of the State, The State Government has a discretion to grant or refuse to grant any Mining lease. Obviously, the State Government is required to exercise its discretion subject to the requirement of the law*".

Accordingly, MoU need not be treated as an Agreement and therefore implications of the UDAY scheme may not be considered for the purpose of evaluation of performance of CSPDCL.

Commission's View

The Commission's detailed views and ruling on the Distribution Loss levels to be considered for the truing up for FY 2016-17 and the revised ARR for FY 2018-19, are elaborated in Chapter 6 and 7 of this Order.

2.1.6 Revising the Capital Structure

The objector submitted that while determining Closing Gross Fixed Assets (GFA), Capital Work in Progress (CWIP), Total Capital Expenditure (Capex), amount of Consumer Contribution and Grant for FY 2016-17, CSPDCL has taken different values, rather than the approved values in the True-up Order of FY 2015-16, as shown below:

Particulars	Closing Value FY 2015-16, Rs Crore (True-up Order)	Opening Value FY 2016-17 taken by CSPDCL, Rs Crore
Gross Fixed Asset (GFA)	5,159.28	5,159.00
Capital Work in Progress (CWIP)	1,586.88	2,273.74
Capital Expenditure (Capex)	6,746.16	7,432.74
Consumer Contribution & Grant	3,192.31	2,268.05

As a result, CSPDCL has computed higher value of Depreciation, Interest Cost and Return on Equity (RoE). Further, the amount submitted in the Petition for CWIP during FY 2016-17 differs from the Provisional Accounts submitted by CSPDCL as shown below:

Particulars (in Rs. Crore)	Petition Form F3 page 119	Provisional Balance Sheet - Note 6.1(c)
Opening Balance of CWIP (1.4.16)	2,273.74	1,971.48
Add: Fresh Investment During the year	1,364.52	-
Less: Total capitalization during the year	662.93	-
Closing Balance of CWIP (31.3.17)	2,975.33	1,971.48

From the above, it is clear that CSPDCL is submitting unauthenticated and contradictory data in the present Petition supported by Affidavit. The objector requested the Commission to apply prudence check on such calculations and to allow lower expenses considering the closing value of True-up of FY 2015-16 and the details of CWIP and Capitalization as per Provisional Accounts for FY 2016-17.

Petitioner's Reply

CSPDCL submitted that the aforementioned changes are due to correction in capital structure, which has resulted in consequential effects like depreciation, RoE, etc., as adequately detailed in the Petition itself.

CSPDCL added that all data has been submitted as per Provisional Accounts and as per proper computations.

Commission's View

The Commission has considered the closing values of GFA, CWIP, Consumer Contribution and Grants for FY 2015-16 as approved in the True-up Order, as the opening values for FY 2016-17. It is to be noted that the truing-up of FY 2015-16 and of previous years have been done based on the audited accounts. The capital expenditure and addition to GFA have been considered based on the provisional Accounts for FY 2016-17. All capital related expenses have been computed accordingly. The Commission's calculations in this regard are elaborated in Chapter 6 of this Order.

2.1.7 Discrepancy in quantum of sale of power and revenue

The objector submitted that the quantum of sale of power and revenue as submitted by CSPDCL does not match within the Petition as shown below:

Particulars	Data-1	Data-2
HV & EHV Sale, MU	HV Sale 5,710.72 EHV Sale 2,654.77 Total 8,365.49 (Petition, Page 13)	8,361.75 (Petition, page 14)
EHV Sale, MU	2,654.77 (CSPDCL Petition, page 14)	2,667.72 (CSPTCL page 64-81) (including BSP Sale)
Revenue from Sale of Power, Rs Crore	10,725.78 (Petition, page 50)	10,789.02 (Pr. Balance Sheet, Note 8.1)

The objector submitted that it will not be justifiable and prudent to assess actual sale of power and its revenue on the basis of provisional and contradictory data. Hence, the Commission should direct CSPDCL for statutory audit and submission of reliable and authentic data before carrying True-up for FY 2016-17.

Petitioner's Reply

The HV and EHV sale amounts to 8,365.49 MU. CSPDCL stated that it would like to stick with Rs 10,725.78 crore as revenue from sale of power, as the balance revenue of Rs. 63.24 crore pertains to various items like fuse charges, reconnection fee, public lighting maintenance, service charges, load reduction charges, NSC Charges, meter testing charge, audit recoveries, maintenance charges feeder, Load reduction charges, etc., which has been considered under Non-Tariff Income.

Commission's View

In addition to the Petition, the Commission sought various other data from CSPDCL for verification. The Commission has undertaken the Provisional True-up for FY 2016-17 based on the available data and shall undertake the final true-up once the Audited Accounts are available. The Commission's analysis of head-wise expenses and revenue for the true-up for CSPDCL for FY 2016-17 are elaborated in Chapter 6 of this Order.

2.1.8 Huge Increase in O&M expenses

The objector submitted that a huge increase has been observed in O&M expenses of CSPDCL, as shown below:

Particulars (Rs. Crore)	FY 2015-16 True-up	FY 2016-17 Approved	FY 2016-17 Claim	Increase over FY 2015-16
Sales, MU	18,620.45	19,831.25	19,162.51	2.9%
O&M Expenses including contribution to P&G Fund	1,248.12	1,365.06	1,463.11	17.2%
Repair & Maintenance Expenses	121.91	125.95	190.10	55.9%
Administrative & General Expenses		135.52	153.28	13.1%

From the above, it is seen that CSPDCL has no control over its ever-rising expenses, but the sales have not increased in proportion to the rise in expenses. Hence, the UDAY Scheme is needed for CSPDCL but it is not committal towards the objectives of the Scheme even after deriving monetary benefit out of it. The objector requested the Commission to be vigilant over the ever-rising expenses, and while truing-up, such rise in expenses should be compared with the rise in sales, thereby examining the efficiency and cost parameters.

Petitioner's Reply

CSPDCL submitted that sales, employee costs, etc., are uncontrollable parameters. Further, the reasons for increase in controllable parameters are also detailed in the Petition itself. CSPDCL would also like to emphasize that monetary benefits of any scheme are not retained by CSPDCL but passed on to the consumers only.

Commission's View

The Commission has allowed the O&M expenses on normative basis and has shared the efficiency gain/(loss) between the actual O&M expenses and normative expenses, in accordance with the CSERC MYT Regulations, 2015, as elaborated in Chapter 6 of this Order.

2.1.9 Share of loss on account of Increased O&M Expenses

The objector submitted that CSPDCL, in the present Petition, has incorrectly excluded certain A&G expenses, while computing the sharing of gains/losses on account of O&M expenses.

Petitioner's Reply

CSPDCL submitted that it has already explained in detail the uncontrollable nature of various expenses in the Petition itself and requested the Commission to consider the same.

Commission's View

The Commission has shared the efficiency gain/(loss) between the actual O&M expenses and normative expenses, in accordance with the CSERC MYT Regulations, 2015, without excluding the heads of A&G expenses as proposed by CSPDCL, for reasons elaborated in Chapter 6 of this Order.

2.1.10 Discrepancy in Cost of power purchased and quantum procured from CSPGCL and Central Generating Stations

The objector submitted that:

a) Per unit cost of Power purchased by CSPDCL from CSPGCL stations has increased by about 49% against the per unit cost approved by the Commission in the MYT Order. Similarly, the per unit cost of power purchased from the Central Generating Stations (CGS) by CSPDCL has increased by more than 8% against the per unit cost approved by the Commission in the MYT Order.

b) Such hike/increase cannot be attributed to costly power purchase from Marwa Thermal Power Plant alone. Marwa TPP has also generated 203.42 MU of Infirm Power, which is available at Rs.1.50 per unit only as approved earlier by the Commission in similar cases.

c) CSPDCL's submission of the quantum of power purchased from CGS and NSPCL as 7851.49 MU and 253.82 MUs does not reconcile with CSPTCL's submission of 7704.02 MU from CGS and 247.22 MU from NSPCL. Such discrepancy has resulted in a huge un-reconciled power purchase amount of Rs. 422.70 Crore.

d) Power Purchase quantum from CSPGCL stations during FY 2016-17 is not reconciling with the quantum submitted by CSPGCL and CSPTCL in their respective submissions, as shown below:

Power Station	CSPGCL	CSPTCL	CSPDCL
DSPM	3,672.68	3,672.68	
HTPS	5,353.65	5,362.85	
Korba (W)	3,155.96	3,155.96	

Power Station	CSPGCL	CSPTCL	CSPDCL
KTPS	2,000.85	2,000.85	Not Submitted
Hasdeo-Bango	146.62	146.46	
Marwa (Infirm)		203.42	
Marwa (Firm)		2,170.75	
Total	**Not Submitted**	**16,712.97**	**16,727.30**

e) Similarly, cost of power purchased from CSPGCL during FY 2016-17 shows a un-reconciled amount of Rs. 583.06 Crore, as shown below:

Particulars	Cost, Rs Cr
Revenue from Sale of Power (CSPGCL T.P. Pg. 89) (excluding Marwa)	4,473.41
Water and SLDC Charges	112.98
Marwa (Infirm) @1.50 (approved by Commission)	30.51
Marwa (Firm) @3.90 (approved by Commission)	846.59
Total	5,463.49
Power Purchase Cost submitted by CSPDCL	6,046.55
Difference (requires reconciliation)	583.06

f) From the above, it is clear that a huge amount of Rs. 583 Crore requires reconciliation with CSPGCL Accounts, which is not submitted before the Commission along with True-up Petition for FY16-17. This un-reconciled amount of Rs. 583 Crore is over and above the reported un-reconciled amount of Rs.422.70 Crore, hence, total amount requiring reconciliation is as high as Rs. 1,005.76 Crore.

g) From the submission made by CSPTCL in its Petition, it has been observed that CSPDCL has not procured any power from CGS like Hirakud, KSTPS II and KSTPS III since August 2016 in spite of having allocated quota of power. No reason has been specified for the same.

Petitioner's Reply

CSPDCL has submitted the Provisional Accounts for FY 2016-17. If the Commission desires, it may further submit power purchase invoices of various CGS, which shows fixed and energy charge separately. CSPDCL added that in the MS Excel model shared with the Commission, it has also submitted separate fixed and energy cost of procuring power from CGS from April to September 2017, to work out realistic projections for FY 2018-19.

CSPDCL further submitted that it has deducted Rs 422.70 crore from the net power purchase cost to restrict its claim for the purpose of provisional true-up in line with the Provisional Accounts. Any deviation, whether positive or negative, post the reconciliation of power purchase cost and subsequent audit of the accounts will be submitted along with detailed justification at the time of final True-up of FY 2016-17.

Commission's View

The Commission has undertaken the Provisional True-up for FY 2016-17 based on the available data and shall undertake the final true-up once the Audited Accounts are available along with all reconciled amounts. The Commission's analysis of power purchase quantum and cost for the true-up for CSPDCL for FY 2016-17 is elaborated in Chapter 6 of this Order.

2.1.11 Higher cost of Renewable Power and lower quantum of Concessional Power

The Objector submitted that:

a) CSPDCL has purchased power from Biomass sources and solar power at Rs. 5.94/kWh and Rs. 6.90/kWh against Rs. 5.50/kWh and Rs. 6.50/kWh, respectively, approved by the Commission in the MYT Order.

b) CSPDCL has purchased only 1561.66 MU at Rs. 1.92/kWh against the approved quantum of 2154.96 MU approved in the MYT Order. This reduced quantum of power purchase is causing an additional burden of Rs. 168 Crore to the consumers.

c) The quantum of Power Purchase from Renewable sources submitted by CSPDCL is 1208.58 MU against the quantum submitted by CSPTCL as 1458.58 MU. Such a huge unreconciled power purchase quantum may cause additional burden on consumers by way of Renewable Purchase Obligation (RPO).

Petitioner's Reply

The quantum and cost of power purchase from various sources is dependent on various external factors, which are beyond the reasonable control of CSPDCL. However, all the power purchase elements can be counter verified though the power purchase bills. Further, duly reconciled quantum and cost will be submitted for the approval of the Commission at the earliest along with relevant documentary proof.

Commission's View

The Commission's analysis of power purchase quantum and cost for the true-up for CSPDCL for FY 2016-17, including the issue of lower purchase of concessional power and the higher rate of purchase from RE sources, is elaborated in Chapter 6 of this Order.

2.1.12 Discrepancy in Sale of Surplus Power

The Objector submitted that:

a) CSPDCL has shown lower realization from sale of Surplus Power at Rs. 3.72/kWh in its Petition as compared to the average realization of Rs.4.04/kWh approved in the MYT Order for FY 2016-17.

b) Similarly, the entry booked against the sale of surplus power in the provisional Accounts is Rs. 1234.88 Crore as against Rs. 1037.19 Crore submitted by CSPDCL in its Petition. This difference of approximately Rs. 198 Crore may cause an additional burden on the consumers.

c) CSPDCL has not submitted the detailed break-up of such sale of Surplus Power, hence, it is difficult to apply prudence check on claim of lower realization. Sale of such Power to Kerala at Rs.4.40 per unit and an average realization of only Rs.3.72 per unit give space for suspicion.

Petitioner's Reply

CSPDCL submitted that the revenue from sale of surplus power depends on market rates over which CSPDCL has no control. Also, relevant account books are submitted to the Commission for prudence check.

Commission's View

The CSPDCL was directed in the previous tariff orders to maintain the accounts in such a way that UI charges for over-drawal and under-drawal from regional pool be reflected separately. Similarly, the state UI pool for over-injection and under-injection be also incorporated in the accounts. It was also directed that the VCA charges and trading of electricity be shown separately in the accounts. It is very unfortunate to note that even after the repeated directions the accounts are not prepared as per the directives and regulatory requirements. This creates a confusion among the stakeholders and it is also difficult for the Commission to analyze the data properly. During the TVS the licensee was again directed to submit the break-up. Thereafter, the Commission has undertaken the Provisional True-up for FY 2016-17 based on the

available data and shall undertake the final true-up once the Audited Accounts are available along with all reconciled amounts. The Commission's analysis of power purchase quantum and cost for the true-up for CSPDCL for FY 2016-17 is elaborated in Chapter 6 of this Order.

2.1.13 Understating the Intra-State Transmission losses and discrepancy in total Transmission Cost

The Objector submitted that:

a) CSPDCL in its additional submission has accepted that it has considered Intra-State Transmission loss at the end of CSPTCL as 3.22% instead of actual loss of 2.81%. Concealment of actual intra-State Transmission Loss may have an impact of about 83 MU costing about Rs.32 Cr at average power purchase cost.

b) It is observed that there is a discrepancy in the intra-State and total Transmission Cost claimed by CSPDCL in its True-Up Petition which is as under:

Particulars	**Amount (Rs.Cr)**
Intrastate Transmission Cost claimed by CSPDCL	835.41
Intrastate Transmission Cost claimed by CSPTCL in its Petition (Pg. 39)	823.49
Excessive Claim by CSPDCL	11.92
Total Transmission Cost claimed by CSPDCL	1,162.93
Total Transmission Cost as per Provisional Balance Sheet, Note No.9.1	1,250.49

Petitioner's Reply

CSPDCL has already provided the details of intra-State and inter-State Transmission Losses in the 'W' worksheet of the MS Excel model shared with the Commission. CSPDCL added that losses on 33 kV and below network are computed considering only following 4 factors:

- Generators injecting power directly to Distribution Network (MU)
- Sum of joint meter reading taken by CSPDCL and CSPTCL at 33 kV (Import Only)(MU)
- Import at inter-State interface with Madhya Pradesh at 11 kV
- Export at inter-State interface with Madhya Pradesh at 11 kV

Thus, losses of CSPTCL has practically no bearing on the distribution losses below 33 kV as claimed by CSPDCL.

Commission's View

The objections were examined and the details were asked from the CSPTCL. As per the provisional accounts the break-up of the revenue demanded from the users of CSPTCL were examined and is shown in Chapter 4 of the order. Applying the prudence check the Commission has undertaken the Provisional True-up for FY 2016-17 based on the available data and shall undertake the final true-up once the Audited Accounts are available along with all reconciled amounts. The Commission's analysis of Energy Balance and Transmission Charges for the true-up for CSPDCL for FY 2016-17 is elaborated in Chapter 6 of this Order.

2.1.14 Deviation in actual and booked contribution to the Pension and Gratuity Fund

The Objector submitted that:

a) CSPDCL has submitted in the Petition that it has paid Rs. 298.80 Cr towards Contribution to Pension & Gratuity Fund as the same was approved by the Commission in the Tariff Order. However, the provisional Balance Sheet reveals actual contribution of Rs. 1233.19 Crore.

b) CSPDCL has borrowed additional funds from Banks for Working Capital and is bearing huge interest cost on it. CSPDCL has transferred huge additional amount of Rs.934.39 Cr to Pension & Gratuity Fund and is now paying a huge interest amount of Rs.67.60 Cr on borrowing as Cash Credit Limit or Working Capital. Such financial irregularity shall prove dangerous to CSPDCL and any ill-effect will have to be borne by the consumers ultimately.

Petitioner's Reply

CSPDCL submitted that the actual contribution to P&G fund is strictly as per the approvals of the Commission only.

Commission's View

The Commission has considered only the actual amount of Contribution to Pension & Gratuity Fund in FY 2016-17, i.e., Rs. 298.80 Crore, rather than the amount including provisioning towards Pension & Gratuity Fund, in line with the practice of not considering provisioning of expenses. The Commission has allowed the Interest on Working Capital on normative basis only, and actual borrowings of CSPDCL have not been factored into the tariff.

2.1.15 Computation of Working Capital and Interest thereon

The Objector submitted that:

a) While calculating the Working Capital requirement, CSPDCL has considered Rs. 963.91 Crore as its receivables equal to one month of the expected revenue from sale of power, which translates to revenue from sale of power during FY 2016-17 of Rs. 11566.92 Crore. However, the revenue from sale of power as submitted by CSPDCL in the present Petition is Rs. 10725.78 Crore for FY 2016-17.

b) The Revenue from sale of power during FY 2016-17 as submitted by CSPDCL is Rs. 10725.78 Crore against the actual revenue of Rs. 10789.02 Crore as per the Provisional Balance Sheet.

Petitioner's Reply

CSPDCL submitted that working capital requirement is computed on normative basis and requested the Commission to take prudent view on the same.

Commission's View

In response to a query from the Commission, CSPDCL clarified that the revenue of Rs. 10789.02 Crore shown in the Provisional Accounts includes an amount that has been considered under NTI by CSPDCL. The Commission has accordingly considered the Revenue from Sale of Power and NTI, as shown by CSPDCL in its Petition, as the same is consistent with the figures shown in the Provisional Accounts.

The Commission has computed the Working Capital requirement for FY 2016-17 on normative basis only, and one month of actual revenue considered by the Commission, has been included in the Working Capital requirement.

2.1.16 Reduction in Non-Tariff Income

The Objector submitted that CSPDCL has submitted Non-Tariff Income of Rs. 201.99 Crore only which is much lower than the Rs. 322.83 Crore approved by the Commission in the Tariff Order for FY 2016-17. CSPDCL has not provided any reasons for such a huge variation of around 37.4% from the approved projections.

Petitioner's Reply

CSPDCL submitted that NTI is essentially a non-regular and additional source of income. However, most of the heads covered under NTI are not fixed in nature and thus cannot be considered as recurring source of income. For example, net income

from sale of scrap, interest on fixed deposits receipts, supervision charges, recovery from staff, load reduction charges, miscellaneous charges, recovery from theft of electricity, etc., are dependent on prevailing market conditions and consumer requirements and thus cannot be fixed at a particular level for the purpose of recovery/income.

Commission's View

The Commission has considered the NTI based on the figures shown in the Provisional Accounts, for the purposes of provisional true-up for FY 2016-17.

2.1.17 Turnaround of CSPDCL and its progress under UDAY Scheme

The Objector submitted that:

a) The UDAY scheme, as a tri-partite agreement between GoI, GoCG and CSPDCL, has been introduced to bring reforms and turnaround the financial health of CSPDCL by infusing more funds and several facilities and in turn CSPDCL has committed to achieve certain targets for technical and financial efficiency. Contrary to it, CSPDCL's performance witnessed a lower growth in all the parameters of technical and financial efficiency, as shown below:

Particulars	FY16-17 approved by Commission	FY16-17 Actual Results	Deviation	Growth over FY15-16
Sales (MU)	19,831	19,162	(-)3.4%	(+)2.9%
Expenses (Rs Cr) (other than Power Purchase)	1,834.71	1977.56	(+)7.8%	(+)11.8%
Standalone Profit/ (Deficit)	873.52	(841.16)	1,714.68	(823.11)
Av Billing Tariff Rate (Rs/kWh)	6.04	5.60	(-)7.3%	(+)16.7% [4.80]
AT&C Losses	19.50% (UDAY)	23.45%	(+)20.3%	

Petitioner's Reply

Not submitted.

Commission's View

The Commission has undertaken the provisional true-up for FY 2016-17 based on available Provisional Accounts and after due prudence check, based on available data. The final true-up for FY 2016-17 shall be undertaken after submission of the Audited

Accounts by CSPDCL. The UDAY MoU has been duly factored into the computations, as elaborated in Chapter 6 of this Order.

2.1.18 Preparation of R-15 and status of defective meters and Assessed Billing cases

The Objector submitted that:

a) It has been observed that that there is no uniformity in the submission of CSPDCL with respect to R-15, several data like number of Stopped and Burnt Meters and number of Assessed Cases are intentionally hidden so that it is very difficult to have an 'Bird's Eye-view' to have an overall picture of distribution system. There are also several data-based and calculation errors due to which the very purpose of preparing R-15 has been lost.

b) Moreover, R-15 (Annual) for FY 2016-17 submitted along with present True-up Petition differs largely from the R-15 (7 months) submitted previously along with the Tariff Petition for FY 2017-18, which indicates that R-15 for FY 2016-17 is being manufactured.

c) The Commission through its previous Tariff Orders had directed CSPDCL several times to reduce the number of billing based on assessed cases and bringing down the defective meters in the range of 2-2-5%, which is not abided by CSPDCL. Ignoring directives from the Commission, CSPDCL is trying hard to conceal such important information but the data submitted in R-15 for FY 2016-17 (7 months) along with the Tariff Petition for FY 2017-18 reveals quite alarming facts, as shown below:

Revenue Category	No of Consumers	Assessed Cases			Defective Meters		
		Number	FY 15-16	FY 16-17	Number	FY 15-16	FY 16-17
BPL Consumer	15,50,793	8,46,301	**57%**	**55%**	66,550	**4.3%**	**4.3%**
Other Domestic	22,35,487	1,89,568	**5%**	**8.5%**	1,13,837	**3.3%**	**5.1%**
Non-Domestic	2,90,551	9,786	**2%**	**3.4%**	7,638	**2.1%**	**2.6%**
Agriculture	3,74,260	2,53,424	**61%**	**68%**	27,988	**7.2%**	**7.5%**
TOTAL LT	45,99,634	13,39,236	**28%**	**29%**	2,19,678	**3.8%**	**4.8%**

d) Data from LT R-15 and its analysis shows that CSPDCL is not sure about actual Energy Consumption and in large number of cases, billing is done on assessment basis. Hence, it is also obvious that Meter Reading is not done on regular basis. Number of Defective Meters is looming large and increasing in spite of several directives and orders from the Commission.

e) It is also observed that R-15 format is being prepared by CSPDCL using SAP Software and the Commission is not authorized to look directly into the data fed into SAP system. Hence, the Commission should inspect SAP data directly and regularly for better feedback and control.

Petitioner's Reply

Not submitted

Commission's View

The Commission is deeply concerned about the high and increasing number of defective meters and assessed cases, which shows that the sales figures submitted by CSPDCL are not metered sales, but largely assessed sales, especially for LT agriculture and BPL category consumers. It is surprising that based on the such large assessed sales the licensee is claiming to achieve the energy loss target and claiming an incentive for the same. The Commission has asked the CSPDCL to clarify the position regarding the same, but no reply was submitted by CSPDCL. This shows that the licensee itself is not in a position to justify its claim. The Commission has dealt this issue appropriately in detail and is elaborated in Chapter 6 of this Order.

2.1.19 Discrepancy in Adjusting the surplus from True-up of CSPGCL, CSPTCL & CSLDC

The Objector submitted that:

a) In the present Petition, CSPDCL has adjusted the surplus revenue from the True-up Petition of CSPGCL, CSPTCL and CSLDC for FY 2016-17, which is not reconciling with the True-up Petition submitted by these entities, as shown below:

Entity	True-up Petition of Entity, Rs. Crore	Adjustment of Revenue Surplus by CSPDCL, Rs. Crore	Difference
CSPGCL	257.40 With carrying cost	122.05	(-)135.35
CSPTCL	18.61 without carrying cost	18.61	Carrying cost
CSLDC	0.74 Without carrying cost	0.74	Carrying cost

Petitioner's Reply

Not submitted

Commission's View

The Commission has considered appropriately the Revenue Gap/(Surplus) after provisional true-up of CSPGCL, CSPTCL, CSLDC, and CSPDCL for FY 2016-17, as elaborated in Chapters 3, 4, 5, and 6, respectively. These Revenue Gap/(Surplus), with due carrying/holding cost for 2 years, have been considered for computing the cumulative Revenue Gap/(Surplus) of CSPDCL for FY 2018-19, as elaborated in Chapter 8 of this Order.

2.1.20 Computation of Rate of Return on Equity (RoE)

The Objector submitted that the Commission, while computing the RoE in the MYT Order, has not considered grossing up RoE with MAT Rate and has considered 15.5% as RoE for the Control Period. In case CSPDCL actually pays Income Tax for any year of the Control Period, then the rate of RoE shall be appropriately grossed up at the time of truing up for that year. Since CSPDCL has not paid any Income Tax during FY 2016-17 and hence, it is erroneous to consider RoE as 16%.

Petitioner's Reply

Not submitted.

Commission's View

The Commission has considered the rate of RoE as 16% for FY 2016-17, in accordance with the MYT Regulations, 2015, without grossing up for MAT rate, as CSPDCL has not paid any Income Tax in FY 2016-17.

2.1.21 Erroneous presentation of Banking of Power

The Objector submitted that:

a) It has been observed that the quantum of Banked Power is quite high and is purchased in one year and used/sold in later years or vice-versa. Amount of such power may be Rs. 800 Cr to Rs. 1,000 Cr evaluated at Average Power Purchase Cost. If the quantum and cost of such Banked Power is not accounted in the same Financial Year, it is going to create several problems like accounting and statutory lapses, viz.,

   a. Banked Power is Stock in Hand (positive or negative, as the case may

be) and it should be accounted in the Balance Sheet and Profit/Loss Account of CSPDCL.

b. By not accounting the quantum and cost of such Banked Power in the same financial year, Revenue Surplus or Deficit may be siphoned to the coming years, which will create artificial Stand-alone Profit/ Loss for that particular Financial Year.

c. It is against the basic principles of accounting and Accounting Standards being followed.

d. It is against the statutory provisions of Income Tax.

b) It should further be noted that Himachal Pradesh Electricity Board Ltd (HPSEB) is also accounting such Banked Power in the same Financial Year.

c) It is also observed that CSPDCL has not provided the details of such Banked Power like Banking Partner/s, Banked Quantum, Date and Time of such Banked Quantity, effective UI Rates on such time, Agreed Date and Time for Reverse Banking, etc., along with the present True-up Petition, hence, it is not possible to ascertain the benefits derived from such methodology.

Petitioner's Reply

Not submitted.

Commission's View

The Commission agrees with the objector that the details of the Banking should be properly maintained in detail and clearly incorporated in the petition. It is expected that the banking transactions are carried out in a transparent manner, so that there is no confusion regarding the same.

In this Order, the Commission has given certain directives to CSPDCL regarding accounting for Banked Power and for submission of the necessary data along with the Petition for final true-up for FY 2016-17, and the benefits should reach to CSPDCL and its consumers.

2.2 Objections on Proposals for Annual Revenue Requirement for FY 2018-19 of CSPDCL

2.2.1 Reduction of Retail Tariff of all Categories by 10%

The Objector submitted that:

a) In the present Petition, CSPDCL has estimated a huge stand-alone Revenue Surplus of Rs. 2,476.22 Cr during FY 2018-19 at the existing level of Retail Tariff. CSPDCL has also proposed to increase Retail Tariff of all Categories by 5 paise/ kWh in order to recover remaining amount of Revenue Deficit.

b) The existing level of Retail Tariff is substantially high and consumers, specially Industries, are unable to bear such high cost of electricity supply. The GoCG has acknowledged this fact very well and has provided External Subsidy to Steel Industries, Agriculture Pumps, BPL Consumers, etc.

c) It is also observed that in FY 2019-20, CSPDCL shall earn a huge Revenue Surplus at the existing level of Retail Tariff and there shall be no Carry Forward Revenue Deficit of previous years, hence, a reduction of about 20% in Retail Tariff may occur in FY 2019-20.

d) It is suggested that Carry Forward Losses from FY 2016-17, of Rs. 2,585 Crore as claimed by CSPDCL, should be recovered into 2 parts, i.e., to reduce retail tariff of all consumers by 10% form existing levels in FY 2018-19 and remaining in FY 2019-20 along with carrying cost, so that Retail Tariff can be stabilized at least for 2 years.

Petitioner's Reply

CSPDCL submitted that the proposal for carrying forward losses of FY 2016-17 in 2 years is against the provisions of MYT Regulations, 2015 wherein true-up of ARR has to be filed on year to year basis, which is also subjected to prudence check by the Commission under scrutiny of controllable parameters.

Commission's View

The Commission has considered the Revenue Gap/(Surplus) after provisional true-up of CSPGCL, CSPTCL, CSLDC, and CSPDCL for FY 2016-17, as elaborated in Chapters 3, 4, 5, and 6, respectively. These Revenue Gap/(Surplus), with due carrying/holding cost for 2 years, have been considered for computing the cumulative Revenue Gap/(Surplus) of CSPDCL for FY 2018-19, as elaborated in Chapter 8 of this Order. The category-wise tariffs have been determined accordingly, in order to recover the cumulative revenue requirement of CSPDCL for FY 2018-19, as approved by the Commission in this Order.

2.2.2 Sales Forecast

The Objector submitted that:

a) The R-15 for FY 2017-18 (6 months) suggests a total sale of 10,502.07 MU while the Annual Forecast for FY 2018-19 is 21,759.49 MU, amounting to an estimated increase of only 3% over FY 2017-18, which seems to be insufficient.

b) R-15 for FY 2017-18 (6 months) suggests a sale of 6,203.9 MU in LT Categories while the Annual Forecast for FY 2018-19 is 12,600.56 MU, amounting to an estimated increase of only 1.5% over FY 2017-18. Looking into the increase in BPL consumers and Agriculture Pump Connections, it seems to be insufficient.

c) R-15 for FY 2017-18 (6 months) suggests a sale of 564.70 MU to BPL Domestic Category while the Annual Forecast for FY 2018-19 is 336.51 MU, which seems to be erroneous.

d) R-15 for FY 2017-18 (6 months) suggests a sale of 2,709.88 MU in Domestic Category including BPL, while the Annual Forecast for FY 2018-19 is 5,475.91 MU, which amounts to an estimated increase of only 1% over FY 2017-18. Looking into the increase in consumers, it seems to be insufficient.

e) R-15 for FY 2017-18 (6 months) suggests a sale of 240.22 MU in LV-5 Industry Category, while the Annual Forecast for FY 2018-19 is 562.94 MU, which amounts to an estimated huge increase of 17% over FY 2017-18. Looking into the past records and very high tariff and other problems faced by this category, it seems to be impossible.

f) R-15 for FY 2017-18 (6 months) suggests a sale of 1,080.96 MU in HV-3 Other Industrial & General-Purpose Category, while the Annual Forecast for FY 2018-19 is 2,510.80 MU, which amounts to an estimated huge increase of 16% over FY 2017-18. Looking into very high tariff of this category, it seems to be impossible.

g) R-15 for FY 2017-18 (6 months) suggests a sale of 2,276.37 MU in HV-4 Steel Industries Category while the Annual Forecast for FY 2018-19 is 4,518.11 MU, which amounts to an estimated decrease of about 1% over FY 2017-18. Looking into the external tariff subsidy by the State Government and other initiatives for rationalization of tariff and various incentives, the estimation of decrease in the consumption of HV-4 Steel Industries seems to be erroneous and unrealistic.

Petitioner's Reply

Not Submitted.

Commission's View

The Commission has projected the category-wise sales for FY 2018-19 based on the actual sales in previous years, the appropriate Compounded Annual Growth Rate (CAGR), and actual sales in the first half of FY 2017-18, as elaborated in Chapter 7 of this Order.

2.2.3 Energy Loss

The Objector submitted that:

a) In the Tariff Petition for FY 2018-19, CSPDCL has considered the Distribution Loss below 33 kV as 20% and Distribution Loss including EHV sales as 17.93%. However, being a signatory to the tri-partite MoU between GoI, GoCG and CSPDCL under UDAY scheme, CSPDCL made a commitment to reduce the AT&C losses as prescribed in the MoU. For FY 2018-19, the agreed AT&C losses under UDAY scheme is 15% and should be considered by the Commission.

Petitioner's Reply

Not Submitted.

Commission's View

The Commission's detailed views and ruling on the energy Loss levels to be considered for the truing up for FY 2016-17 and the revised ARR for FY 2018-19, are elaborated in Chapter 7 of this Order.

2.2.4 Inter-State Transmission Losses

The Objector submitted that:

a) In the present Petition for FY 2018-19, CSPDCL has suggested to consider actual weighted average transmission loss of last 12 months of Western Region from August 2016 to July 2017, which is 3.63% as reported by CSPDCL.

b) When the Petition was submitted in the month of December 2017, considering losses up to July 2017 is not judicious and the period considered is overlapping with that considered in previous Tariff Order FY 2017-18. The

Commission is requested to approve inter-State Transmission Losses as 3.52%, which is actual average yearly loss from the WRLDC website against the claimed losses of 3.63% by CSPDCL.

Petitioner's Reply

Not Submitted.

Commission's View

The Commission has considered the inter-State transmission losses of 3.66%, based on the actual inter-State transmission losses in FY 2016-17, for the purpose of projecting the Energy Requirement for FY 2018-19, which shall be trued up based on actuals subsequently.

2.2.5 Power Purchase from Marwa TPP of CSPGCL and subsequent Inter-State Sale

The Objector Submitted that:

a) The Commission in the MYT Order for FY 2016-17 stated that Power generated from Marwa is considered as being sold inter-State at the rate of Rs.4.40 per kWh in FY 2016-17 and considered as being sold to Telangana from FY 2017-18 onwards, at a trading margin of 7 paise/kWh. However, in the present Petition for FY 2018-19, CSPDCL has proposed to sell such power procured from Marwa TPP at a rate of Rs.3.90 per kWh, without any trading margin. Moreover, the statutory and other charges such as water charges, CSLDC charges, intra-State transmission charges, intra-State transmission losses, Start-up Power Charges, and P&G Fund Contribution are loaded on retail consumers, contrary to the Order of the Commission.

b) Further, FCA Charges for Marwa TPP were also recovered from retail consumers. When consumers objected to the recovery of such FCA Charges from retail consumers, CSPDCL accepted its mistake and allowed an adjustment, without giving any detailed calculations of such adjustments.

Petitioner's Reply

Not Submitted

Commission's View

The sale of energy to Telangana has commenced in FY 2017-18. Therefore, during truing up of FY 2017-18, the issues raised would be addressed protecting the interest of consumers of State.

2.2.6 Retail Tariff Proposals for Mini-Steel Plants under HV-4 Steel Industries Category

The Objector submitted that:

a) Mini-Steel Plants working within Chhattisgarh and drawing electricity from CSPDCL are facing very stiff competition from other Steel Hubs in the country like Jharkhand, Orissa, West Bengal (DVC), Punjab, etc. other States like Madhya Pradesh and Gujarat are also providing cheaper electricity to attract such industries within their States. Moreover, Steel Plants having Captive Generation within the State and Steel Plants situated in Jindal Park, Raigarh (Chhattisgarh) are also posing a great threat to the survival of such Mini Steel Plants.

b) Such Mini Steel Plants are able to survive only with the help of external subsidy from the GoCG, but there is a question about how long such support will continue, as such subsidy is available for 6 months only, although extended three times.

c) A close comparison of retail tariff for Mini-Steel Plants in States such as Orissa, Jharkhand, Madhya Pradesh, Punjab and Gujarat indicate that sincere efforts have been made to keep the effective retail tariff of Mini Steel Plants below Rs. 5.00 per kWh. The Commission is requested to design the retail tariff for Mini-Steel Plants category in a manner so that the effective tariff for this category could be reduced.

d) Carry forward of losses for FY 2016-17 in 3 years so that the same benefit can be passed on to all the consumers in FY 2018-19.

e) Reduce ABR for HV-4 from Rs.7.62/kWh proposed at present.

f) Allow Load Factor incentive from 50% to 69% at 1% for every 1% increase in load factor instead of from 60% to 79% as proposed by CSPDCL. This will have minimum impact on revenue as also provide relief for many industries in HV-4 category.

g) Increase ‘planned Load Shedding hours’ as proposed by CSPDCL from 30 hours to 60 hours, for the purpose of computation of Load Factor.

h) Increase night TOD discount to 25% from 10% at present.

i) Reduce Demand Charges from Rs.375 per kVA to Rs.200 per kVA.

j) Make separate category for Power Intensive Steel industry having above 50% Load Factor. This will enable directed incentives to this power intensive sector for the benefit of all.

Petitioner's Reply

CSPDCL submitted that the proposal of carrying-forward losses of FY 2016-17 in 2 years is against the provisions of MYT Regulations, 2015 wherein true-up of ARR has to be filed on year to year basis, which is also subjected to prudence check by the Commission under scrutiny of controllable parameters.

Commission's View

The Commission's detailed tariff philosophy and categorization is elaborated in Chapter 8 of this Order.

2.2.7 Suggestions/Objections on Retail Tariff Proposal for FY 2018-19

The Objector suggested that:

a) A separate Tariff Category/Sub-category for Power Intensive Steel Industries, consuming more than 10 lakh units every month or maintaining an average Load Factor above 50%, like Mini Steel Plants, etc., should be formed in order to monitor their problems and subsequent resolution effectively.

b) Demand Charges should be reduced to Rs.200 per kVA per month from the present level of Rs.375 per kVA per Month. Energy Charges should also be reduced so that the effective retail tariff of Mini Steel Plants comes below Rs.5.00 per kWh, in order to be competitive with other States.

c) Effective night tariff under ToD Tariff is also highest although CSPDCL has surplus power during most of the time in the year, which is surrendered to the grid at a very low realization of Rs.1-2 per kWh. Hence, ToD Incentive during Off-Peak Hours should be increased to earlier level of 25%.

d) Looking into varying surplus in off-peak hours around the year, incentive can be designed on Punjab Pattern, where incentive increases with the availability of surplus power.

e) Load Factor Incentive should be given from a Load Factor of 50% in a step-wise manner with a capping of 20% maximum.

f) Load Factor should be computed on Maximum Demand (MD) instead of Contract Demand (CD).

g) In the present Petition, CSPDCL has proposed to consider 30 hours as power-off hours every month, which should be increased to 60 hours looking into frequency of load shedding, power cuts and shut down during weekly maintenance day.

h) Relief of 20% in the Contract Demand (i.e., permission to run at 120% of CD during off-peak hours without attracting any penal charges) should be continued, but ToD Tariff should be made applicable on such excessive consumption.

Petitioner's Reply

CSPDCL submitted that:

a) The suggestion to create a separate tariff category for power intensive industries on the basis of consumption is unfounded because existing sub-category in HV-4 Steel Industries is divided upon criteria of supply voltage and Load Factor, wherein Load Factor is an indirect parameter to control the consumption. Since the existing tariff structure itself has a control on consumption of units, hence, there is no need to have a separate tariff categorization.

b) The proposal to reduce Demand Charges to Rs. 200/- per kVA from Rs. 375/- per kVA on monthly basis and Energy Charges suitably to result in average billing rate of Rs. 5/- per kWh is without any study and basis. Tariff structure prevailing in few States cannot be taken as a basis for retail tariff design in this State. CSPDCL has submitted a retail tariff proposal having an inbuilt Load Factor incentive mechanism leading to a rebate of maximum 20% in Energy Charges. By doing so, the effective tariff of this category would come down to below average cost of supply, which in turn benefits the Steel Industries.

c) Further, the Objector has relied upon the average realization rate of unscheduled interchange (UI) under-drawal for determination of night-time tariff under TOD, which is baseless because CSPDCL ought to carry surplus power during off peak hours on 24x7 basis for the purpose of assuring availability to consumer. It may be appreciated that climatic changes / weather conditions affect the balance between availability and demand thereby leading to circumstances wherein under-drawal is caused. This is inevitable under the grid conditions and beyond the control of the Distribution Licensee. However, under the approved practice, since UI itself is a result of events, which are beyond the scope of planning, the same cannot be relied as a ground to design the tariff for retail supply.

d) In the present Petition, the limit of Load Factor incentive has been reduced from 65% to 60%. This change is proposed to cover more number of consumers in the scope of incentive. The Objector's proposal to consider a Load Factor of 50% for the purpose of incentive is without any technical study or experience. Further any incentive is commercially viable provided it guarantees an optimum level of performance. The base line of 50% for this purpose is incorrect and therefore, should not be relied upon.

e) The proposal of the objector to evaluate Load Factor on Maximum Demand instead of Contract Demand is against the Terms & Conditions of Supply between the Licensee and the consumer. The Contract Demand is a legal understanding between the consumer and the Licensee, while the Maximum Demand is a variable depending upon the usage of electrical gadgets by the consumer. The Load Factor is a calculation based upon the ability of the consumer to avail its Contract Demand that results into electricity consumption recorded in the meter.

f) The proposal of CSPDCL to consider 60 hours as power off hours for the purpose of calculation of Load Factor is based upon system reliability of supply to this category of HT consumers. Therefore, proposal given by the objector, which has no basis, should not be relied upon.

Commission's View

The Commission's detailed tariff philosophy and categorisation are elaborated in Chapter 8 of this Order.

2.2.8 Retail Tariff proposal for Low Load Factor Steel Rolling Mills under HV-4 Steel Industries Category

The Objector submitted that:

a) As per R-15 for FY 2015-16 and FY 2016-17 (from April to October) submitted by CSPDCL, it is clear that average Load factor for LLFI Steel Rolling Mills is above 17%. It is also evident in the Commission's Tariff order for FY 2017-18, where the approved average Load Factor for FY 17-18 was 24%.

b) The Commission has prescribed a capping of only 15% for lower demand charges. Approving a capping above normal higher values would have been judicious but as a result of Commission's previous orders, such Low Load Factor Industries are denied from availing lower demand charges as decided

by the Commission itself in its previous orders.

c) CSRA has carried a survey amongst some of its members availing Low Load Factor Industries Tariff, which shows that there were only 8% consumers who were always below 15% Load Factor during FY 2016-17, but which has increased to 28% in FY 2017-18. It is because of the capping that the consumers having Load Factor near 15-17% are trying to curtail their production and electricity consumption due to the capping of 15% as crossing it would result in huge monetary burden for them. Thus, such erroneous capping of 15% has initiated a negative trend in several consumers who are just above it and who were earlier billed at lower demand charges in earlier energy bills but are now finding themselves helpless and are suffering huge monetary loss.

d) It may be noted that if Load shedding/No-load condition is also taken into account while computing the average Load Factor, it shall further increase well above 17%. It is also to be noted that CSPDCL is not providing the details of such power-off hours along with the monthly energy bills. It is observed that power-off hours during night hours are also taken into account in the case of stand-alone steel Rolling Mills who are known to be single shift production industry and do not generally work during night hours, hence, such practice is illogical and not judicious.

e) As per the consumption during FY 2016-17, about 92% of such low Load Factor consumers would suffer due to such imposition of 15% capping on Load Factor. Hence, it is requested that capping of 30% on Load Factor to avail lower demand charges would be justifiable as majority of such low Load Factor steel rolling mills would be covered under it.

f) The average tariff of Rs. 9.06/kWh for such low Load Factor industries is about 158% of the Average Cost of Supply (ACoS) of Rs. 5.72/kWh, as the Tariff Order for FY 2017-18 and hence, the tariff for Low Load Factor Steel Rolling Mills is not within the band of +20% of the ACoS, which is a declared objective of the Commission.

g) The Average Billing rate (ABR) of such Low Load Factor Steel Rolling Mills is not only the highest amongst all the consumers within Chhattisgarh but is second highest among the Industrial States such as Maharashtra, Orissa, Punjab, MP, Gujarat and others in the 20% Load Factor category.

Petitioner's Reply

CSPDCL submitted that:

a) The prayer of notifying a sub-category for Rolling Mill is baseless because the Commission has taken into consideration the basis of Load Factor to sub-categorize HV-4 tariff category. The limit of 15% is arrived on the basis of historical data obtained from the Revenue Statements provided by the Distribution Licensee as input during the tariff proceedings. The Applicant under the garb of capping Load Factor from 15% to 30%, wants the benefit of lower demand charges of Rs. 100/- per kVAh up to a Load Factor limit of 0 to 30% without giving justified reasons. The re-determination of Load Factor capping from 15 to 30% would have commercial implications on the Petitioner's revenue.

b) It can be verified from the records that the Petitioner has supplied at a reliability index of more than 99% to the aforesaid category of consumers. In this way, optimum utilization of Contract Demand by a Steel Rolling Mill operating under single shift justifies the limit of 15% load factor.

c) Average billing rate for HV-4 tariff categories claimed in the Petition shows that the proposed tariff for this consumer category is within the limits of 120% of average cost of supply.

d) The Electricity Bill is a statement comprising commercial information in accordance with the approved Supply Code. Information about power-off hours can be evaluated from Load Factor, Contract Demand, billed units and total number of hours during the billing period. There are technical limitations in providing additional information in electricity bills and therefore, additional information about power-off hours in monthly energy bills would be difficult.

e) There is no agreed understanding or written agreement between HV-4 Steel Rolling Mill consumer category to restrict their load to single shift only. Moreover, notification of Load Factor-based demand charges and energy charges is commercially viable for supply of electricity as consumer would be billed as per usage. In view of the above, proposal for not taking power-off hours during night period for Steel Rolling Mill is against the terms of the Supply Agreement and Supply Code.

Commission's View

After taking into consideration all the relevant aspects and the data submitted by petitioner and objector, load factor limit for availing less demand charges for exclusively Rolling mills has been specified as 25%. The Commission's detailed tariff philosophy and categorisation are elaborated in Chapter 8 of this Order.

2.2.9 Reasonable fixation of Tariff for Railways

The Objector submitted that:

a) The traction tariff as proposed by CSPDCL should further be reduced to the level of net power purchase cost of CSPDCL.

b) Railways should be given the status of Deemed Licensee.

c) The Railway Non-Traction Load should be considered as Public Utility similar to LV-6: Public Utility Category.

Petitioner's Reply

CSPDCL submitted that:

a) The Tariff Policy provides that the consumer tariff should remain within the limits of +/-20% of Average Cost of Supply (ACOS). ACOS is the per unit rate of expense incurred by the Distribution Licensee, comprising the Power Purchase Expense including Transmission Charges and SLDC Charges, O&M expenses, Depreciation, Interest on Working Capital, Return on Equity, etc. The proposal of Railways to consider only Average Power Purchase cost of CSPDCL considers only power purchase expense and no other network expense, which is mandatory for evaluation of ACOS, hence, it is not consistent with the provisions of the Act.

b) The issue of providing Deemed Licensee status has already been raised by the objector in a separate Petition. Since the same objections have been raised here again carrying almost similar facts, hence, under the principle of res-judicata, they cannot be taken into consideration for the purpose of this Petition. Similarly, the issue of Open Access is not a subject of CSPDCL's Tariff Petition and the Objector has filed a separate Petition regarding the same.

c) The Objectors request to consider Railways' Non-traction load under LV-6 Public Utility category is a tariff design issue under Section 62(3) of the Act. Under the existing structure, non-traction load of Railways is billed under HV-

3 and LV-2, respectively. The aforesaid tariff structure is continuing since inception of the regulatory regime and the Objector has not justified the reasons for change in tariff design.

Commission's View

The tariff of the Railway has been designed in a way such that it balances the interest of the consumers and Petitioner. A significant reduction in tariff has been considered for Railways. The Commission's detailed tariff philosophy and categorisation are elaborated in Chapter 8 of this Order.

2.2.10 Suggestions on Retail Tariff and other charges for LV-5 LT Industries

The Objector submitted that:

a) The Average Billing Rate (ABR) of LT Industries is much higher than that prevalent in other States, therefore, the ABR should be reduced.

b) Existing Demand Charges are much higher than that prevalent in other States, therefore, Demand Charges should be reduced to Rs. 125/HP/Month.

c) Load Factor incentives should be introduced in similar manner as given to HT Industries and as made available to LT Industries in Madhya Pradesh, so that more electricity consumption will be encouraged using the same infrastructure. At present, no such relief is being given in Chhattisgarh.

d) Power Factor incentive should be increased and should be made applicable step-wise for each percent improvement as available in Madhya Pradesh, so that qualitative consumption of electricity will be encouraged.

e) Capping of LT Industrial Load should be increased from the existing 100 HP to 150 HP like in other States so that hurdles in expansion of such industries will be removed.

f) There should be no Supply Affording Charges for enhancement of existing load.

g) Possibility of Supply Affording Charges being borne by DISCOM should be explored by allowing such expenses under Capital Expenditure Plan and subsequent interest.

h) If any industrial consumer is willing to opt for HT Supply, Supply Affording Charges should be liberally derived by adjusting such charges paid by the consumers to avail LT supply.

i) Security Deposit (SD) of 1.5 times the average consumption should be held instead of existing 2.0 times.

Petitioner's Reply:

CSPDCL submitted that the proposal given by the Applicant is based upon comparison with the tariff structure of different States, which is incomplete. Comparing ABR available of different States is prudent only when the Revenue Statement of each State is available. The figures indicated by the Objector are reproduction of Tariff Orders of other States while CSPDCL figures are based on R-15 for FY 2016-17. CSPDCL has proposed tariffs in such a way that the ABR is kept within the limits of ±20% of ACOS.

Commission's View

The Objector's suggestion for reviewing the demand charges for LT-Industry has been considered. The tariff for the sub-category of this category has been designed in such a way that the ABR is within +/-20% of ACoS. Some of the issues raised are beyond the scope of this petition. The Commission's detailed tariff philosophy and categorisation are elaborated in Chapter 8 of this Order.

2.2.11 Rebate in tariff for Export Oriented Unit

The Objector submitted that due to the recession in the market, the Textile export industries are facing financial constraints and production is adversely affected, and the industry has become a BIFR unit. Therefore, the Commission is requested to provide rebate in Tariff for Export Oriented Textile units.

Petitioner's Reply

Not Submitted

Commission's View

The Commission's detailed tariff philosophy and categorisation are elaborated in Chapter 8 of this Order. The tariff of the consumers is designed based on the nature of consumption and its load profile and the applicable voltage etc. The tariff is designed in such way that the expenses of the licensee is recovered from the sale of electricity.

2.2.12 Distribution Losses considered on higher side

The Objector submitted that:

a) CSPDCL has considered the Distribution Loss as 20% for FY 2018-19,

however, for FY 2016-17 the actual distribution loss was 20.92% against 22%.

b) The CAGR for LV domestic inclusive of BPL category is 12.2%, hence, by this increase in the LV domestic users, the fixed distribution losses shall remain same and only the variable losses will increase. So, overall loss % shall be reduced.

c) The considered Distribution Loss of 20% is very high and against the intent of the MoU signed under UDAY scheme which mandates CSPDCL to reduce the AT&C losses from 22.50% in FY 2014-15 to 15% by FY 2018-19.

Petitioner's Reply

Not Submitted

Commission's View

The Commission's detailed views and ruling on the Distribution Loss levels to be considered for the truing up for FY 2016-17 and the revised ARR for FY 2018-19, are elaborated in Chapter 6 and 7 of this Order.

2.2.13 Reduced Cost of Purchase

The Objector submitted that the cost of power purchase from various sources for FY 2018-19 is considered as Rs. 3.60 per kWh, which is on lower side as compared to the actual cost of power purchase of Rs. 4.04 per kWh for FY 2016-17.

Petitioner's Reply

Not submitted.

Commission's View

The Commission has considered the cost of power purchase from various sources for FY 2018-19, based on the actual cost of power purchase in the first half of FY 2017-18 and after factoring a suitable escalation in the rates for purchase from sources other than CSPGCL, as elaborated in Chapter 7 of this Order.

2.2.14 High Agriculture Tariff and defective meters

The Objector submitted that:

a) The Commission determines the Agriculture tariff within +/-20% of the ACOS, and the tariff is increasing every year. The cost of power consumed for agriculture activities should be reduced.

b) The number of defective meters remains the same and still there is no concrete infrastructure in place to bill the consumers as per the meter readings and the burden of inefficiency is borne by the farmers.

c) In the absence of metering infrastructure in agriculture sector, CSPDCL is booking sales to this category without any readings and trying to reduce the Distribution Losses and claiming subsidy in the name of power supplied to the farmers. Hence, it is matter of urgency to put in place some fool-proof system for meter reading.

d) The Commission is determining the tariff within +/- 20% of ACOS but has not given any basis or rationale as to why a category is kept in a particular range. There was a time when Railways were supplied power at tariff higher than ACoS, which is now supplied power at tariff lower than ACOS. Such similarities could be drawn for steel industries also. If the subsidy provided by the GoCG is included, the tariff to this category works out to be lower than ACOS. Therefore, the Commission needs to explain the Tariff Philosophy and Tariff design.

Petitioner's Reply

Not submitted.

Commission's View

The Commission is deeply concerned about the high and increasing number of defective meters and assessed cases, which shows that the sales figures submitted by CSPDCL are not metered sales, but largely assessed sales, especially for LT agriculture and BPL category consumers. It is surprising that based on the such large assessed sales the licensee is claiming to achieve the energy loss target and claiming an incentive for the same. The Commission has asked the CSPDCL to clarify the position regarding the same, but no reply was submitted by CSPDCL. This shows that the licensee itself is not in a position to justify its claim. The Commission has dealt this issue appropriately in detail and is elaborated in Chapter 6 of this Order.

2.2.15 Huge payment towards Pension Fund Contribution

The Objector submitted that:

a) The Contribution made towards Pension Fund ranges from Rs 480 Crore to Rs 680 Crore, which is around 5% of the total ARR.

b) The Committee formed for allocating the Pension Fund decides the annual

contribution towards this Fund. It is observed that pension liabilities, which were not met in the past, are now being burdened on the present consumers. The Commission needs to keep an eye on the functioning of the Committee, because decisions made by the Committee prima facie indicate breach of provisions made under the Tariff Policy. The Tariff Policy mandates that decade old liabilities such as Pension Funds and any contribution for future should not be passed on to the consumers.

Petitioner's Reply

Not submitted.

Commission's View

The Commission has considered the Contribution to Pension Fund for FY 2016-17 as well as FY 2018-19, as approved in the MYT Order dated March 31, 2016, without any change.

2.2.16 Increase the Contract Demand for LT Industry category

The Objector submitted that:

a) In order to increase the production, various new machineries are in use in the small-scale industries. It is not possible to operate heavy machinery under the present 100 HP or 75 kW load. Since, these industries are based on limited capital, they cannot shift to the HT category as it would be a financial burden for them.

b) This category is charged in excess for power consumption within the peak hours, as adopted from the State of Gujarat. However, in the State of Gujarat, the Connected Load for LT industry category is 100 kW or 135 HP load. The Commission is requested to increase the connected load for LT Industry category to 150 HP or 112 kW.

Petitioner's Reply

Not submitted.

Commission's View

The Commission has enhanced the limit for availing supply on LV from the existing limit of 100 HP to 150 HP. However, the metering of such consumers shall be done on HV. The LV consumers who has availed connections up to 100 HP and wants to enhance its load further up to 150 HP by transiting its category from LV to HV, but,

does not wants to invest capital expenditure on transformers, substations and accessories. The Consumers has its option to approach the distribution licensee for installation of transformer s/s, and related accessories, by the licensee and recovering such expenses through monthly rent from the consumers as per the prevailing rules. The licensee is advised to examine the same and take action appropriately.

2.2.17 To restructure the tariff category for Rice Mills

The Objector submitted that:

a) De-husking and Polishing intermediary is the part of primary agriculture activity and hence, should be considered under the Agriculture Allied Activity category, i.e., LV-4 and HV-9.

b) At present the higher limit under LT-Industry category is 100 HP and 75 KW. With the availability of 200-300 HP transformers and improved infrastructure this limit could be extended to 150 HP. Also, at present, upto 20% of connected load, penalty of 150% and for more than 20% of connected load, penalty of 200% is imposed on fixed and energy charges. Initially it was 130%, and hence, should be kept minimum.

c) Regarding two-part tariff, it is unfortunate that there is a difference in billing under LV 5.2.2 and LV 5.3 for 100 HP and 75 kW. Under LV-5.2.2, the Fixed Charge is Rs.150 HP/month and Energy Charge is Rs.5.70/kWh, and under LV-5.3, the Fixed Charge is Rs. 200/HP/month and Energy Charges are Rs.5.90/kWh. Such difference is not judicious and hence should be changed.

d) In the past, Rice mills were considered seasonal industries, and based on consumption for 3-4 months, rebate was given to this category. In the present year, the Rice Mills because of unavailability of Rice will not be able to operate throughout the year and pay electricity bills on time. Therefore, the Commission is requested to create a separate category for Rice Mills and provide rebate to this category.

e) The Objector submitted that the tariff for Dal/Rice mills for LT category is Rs. 7.98/kWh, whereas, under HT category it is Rs. 8.97/kWh, which is amongst the highest in the States like Punjab, Gujarat, Orissa, and Maharashtra. Very high tariff for this category is making the sector lagging behind in competition with other industrial states. The Commission is requested to rationalise the tariff under this category to encourage the investment in this sector.

Petitioner's Reply:

CSPDCL submitted that:

a) It is quite evident that Rice Mills are a food processing industry, which is operated through machineries and hence, kept under the said category. The facts produced by the objector do not have any rational basis to include the Rice Mills under Agriculture Allied Category.

b) The proposal of increasing the LT-industry limit to 150 HP can take place only when the Supply Code Regulations are amended. Hence, this Proposal is beyond the scope of the present Tariff Petition.

c) The proposal regarding two-part tariff is not clear, hence, response to it is not possible. Also, tariff design is the functional responsibility of the Commission and hence, it is beyond the scope of CSPDCL to comment upon the issue.

d) The Commission from its first Tariff Order has kept Rice Mills under the present category and it is not judicious to create a separate category based on problems faced by this category of Industries.

Commission's View:

The Tariff for LT-industry has been rationalised to the great extent and even the sub-categories were brought within +/-20% ACoS. This will address the concern of the objector. The Commission's detailed Tariff Philosophy and categorisation are elaborated in Chapter 8 of this Order.

2.2.18 To rationalise the Tariff for Poultry Farms

The Objector submitted that more than one lakh farmers in the State are associated and dependent on the Poultry farms for their livelihood. Poultry farms are dependent on domesticated birds and any outbreak of disease results into huge losses to the farmers. Therefore, the Commission is requested to give poultry farms the status of Agriculture category to encourage the farmers engaged in this occupation.

The Commission has determined Rs.5.50/kWh as Energy Charges and Rs. 375/kVAh as Fixed Charges. The tariff for the same category in the State of Maharashtra is Rs.4.56/kWh as Energy Charges and Rs.40/kVA as Fixed Charges. The Objector submitted that there should be separate category for Hatcheries, Poultry, farms, Dairy, Fisheries, Breeding Farms, Sericulture, Tissue culture, Aqua-Culture Laboratories, and Milk Chilling Plant and for having lower tariff for this category.

Petitioner's Reply

CSPDCL submitted that:

a) In the present tariff structure, the above-mentioned activities are covered separately under Agriculture-Allied category, and therefore, there is no question of creating a separate tariff category for this sector.

b) The objector has compared the tariff for the same category with neighbouring States to argue that competitiveness with the neighbouring States should be the base for designing tariff for a particular sector, which is against the principles of the Tariff Policy and therefore, not acceptable.

c) Tariff design and consumer categorisation is a functional responsibility of the Commission under Section 62(3) of the Electricity Act, 2003.

Commission's View:

The Tariff for Agriculture-Allied category has been rationalised to the extent possible taking into consideration of the relevant aspects. The Commission's detailed Tariff Philosophy and categorisation are elaborated in Chapter 8 of this Order.

2.2.19 To reduce the Tariff for Agriculture and Allied category

The objector submitted that to fulfil the dream of doubling the income of farmers and to achieve the targets set under Start-up India and Stand-up India, the tariff for Agriculture and Allied category should be rationalised and Demand Charges should be revoked.

The Objector further submitted that:

a) Flat rate billing should be levied on all the submersible pumps as is done in other States and the bill should not include any other charges than the flat rate.

b) Uninterrupted supply should be provided from evening 5 pm to 11 pm to all the domestic rural consumers. Most of the meters on the submersible pumps are not working and billing is done on the basis of the assessment.

c) Because of overloaded transformers, Maximum Demand seems inflated and hence, Maximum Demand charges should not be added.

d) Atal Jyoti scheme should be implemented in all the districts of the State and the length of the Atal Jyoti lines should be reduced to prevent the maintenance hurdles and hence tie points in between the lines.

Petitioner's Reply:

CSPDCL submitted that most of the points raised are beyond the scope of the present Tariff Petition, however, the tariff design and consumer categorisation are a functional responsibility of the Commission under Section 62(3) of the Electricity Act, 2003.

Commission's View:

The Tariff for Agriculture and Agriculture-Allied category has been rationalised to the extent possible taking into consideration of the relevant aspects. A new sub-category has been created for LT Agriculture-Allied consumers having load upto 25 HP and the tariff has been kept reasonable. The Commission's detailed Tariff Philosophy and categorisation are elaborated in Chapter 8 of this Order.

2.2.20 To consider 'not-for-Profit' NGOs under Domestic Category

The Objector submitted that the Commission in its Tariff Order has considered Public Trusts under domestic category, but registered not-for-profit Organizations and NGOs, were not covered under the domestic category. However, the Government of India through different departments directed that registered not-for-profit organisations, registered public trusts, and companies registered under Clause 25 of the Companies Act, 1956 shall be given equal treatment. The Commission is therefore requested to consider registered not-for-profit organisations under the Domestic Category.

Petitioner's Reply

Not submitted.

Commission's View

The Commission's detailed Tariff Philosophy and categorisation are elaborated in Chapter 8 of this Order.

2.2.21 To remove Hospitals, Clinics and Nursing Homes from Commercial tariff slabs

The Objector submitted that:

a) There is no separate category for power consumption in Medical and related professions and institutions and CSPDCL is collecting bills from this sector under commercial slabs.

b) Medical services are one of the basic and necessary public services provided by the professionals in this field and hence, charging them under commercial slabs is not judicious. The Supreme Court of India in its several Judgments upheld the categorisation of Medical services as necessary public service. The Commission has kept Medical services and associated institutions such as Hospitals, Clinics and Nursing Homes under commercial category.

Petitioner's Reply

CSPDCL submitted that consumer categorisation under Section 62(3) of the Act is a statutory function of the Commission. However, the Petitioner accepts the proposal and direction by the Commission, if the proposed categorisation has no impact on the annual revenue of CSPDCL.

Commission's View

The issues raised by the objector has been considered appropriately. The Commission's detailed Tariff Philosophy and categorisation are elaborated in Chapter 8 of this Order.

2.2.22 CSPDCL's Agreement with CPPs for payment of unscheduled injection and Parallel Operation Charges

The Objector submitted that:

a) The unscheduled injection by CPPs are occasional unplanned injection of smaller quantum/duration and do not come under 'short-term open access', so SLDC charges payable by Short-term Open Access customers should not be applicable on them. Also, being unplanned injections; there is no role of scheduling by SLDC in these cases. Hence, the Commission is requested to clarify in its Tariff Order for FY 2018-19, that the SLDC Operating Charges shall not be payable by CPPs entering into Agreement with CSPDCL for unscheduled injection.

b) CSPDCL in the draft Agreement has put a limit of minimum 1 MW unscheduled injection to be done by a CPP to become eligible to get payment for the same. Unscheduled injections of a CPP by its very nature are often less than 1 MW; so, this limit unduly penalises the CPP. As the maximum amount payable for such unscheduled injection is anyway subject to a cap of Rs. 1.5/kWh, directions may be issued for removal of this limit of minimum 1 MW injection.

c) In the Tariff Order for FY 2017-18, the Commission determined Parallel Operation Charges at the rate of Rs.21/kVA/Month and revised the methodology for billing of Parallel Operation Charges, but CSPDCL is continuing the billing as per old methodology.

Petitioner's Reply

CSPDCL submitted that SLDC Operating Charges payable by Short-term open access consumers is correct and proper as per the terms & conditions of existing Tariff Order sub-clause 13(e) under clause 11.2.12. Accordingly, an Open Access consumer is obliged to pay operation charges to SLDC at the rate of Rs. 2000/- per day. The other points raised in the objections are irrelevant for the purpose of instant Tariff Petition.

Commission's View:

The Open Access charges are required to be levied as per the Open Access Regulations only. The issue of Parallel operation charges is beyond the scope of the present petition.

2.2.23 To remove Solar Power producers from start-up Power Consumers

The Objector submitted that:

a) The Commission should either allow netting of energy and determine suo-motu modalities of netting of energy on kWh basis as observed by the Commission in its Order dated October 7, 2016 in Petition No. 15 & 16 of 2016, or else, the Commission should create a separate category for Solar power projects which are not start-up power consumers and would be billed at the rate quite lower than the rate applicable to HV-7 category.

b) There should be not be requirement of getting separate connection and maintaining Contract Demand for importing power by Solar Direct Project.

Petitioner's Reply

Not submitted.

Commission's View:

This issue has been dealt appropriately.

2.2.24 Provision for Contract Demand in two steps for South Eastern Coalfields and related issues:

SECL submitted that:

a) In some of the mines, Contract Demand exceeded during rainy season every year (for 3 months) as compared to rest of the period, but there is no such provision and additional charges for contract demand have been paid.

b) Being a bulk consumer of electricity, CSPDCL should supply SECL mines electricity supply through dedicated feeder to ensure un-interrupted power supply and regular production and considering other safety requirements, as SECL is paying full cost of power lines as per their requirement.

c) SECL Kusmunda Area deposited Rs. 26.83 Crore on 31.01.2017 to CSPTCL for construction of 132 kV DCSS tower line from Chhuri sub-station of CSPTCL to proposed 132 kV Kusmunda sub-station. SECL Sub-station is in the final stage of commissioning but the said 132 kV tower line is still not completed and the physical progress of work is not up to desired level.

d) Unreliable power supply to Coal Mines under Bishrampur Area of SECL through 132/33 kV Sub-station of CSPDCL at Bishrampur. Also, few deficiencies such as broken insulators, conductors loosened, broken stay wire, etc., have been observed. The Commission is requested to look into the matter.

e) Loss of coal production in the mines of Baikunthpur area due to low voltage since 132/33 kV substation, Salka has failed on 28.12.2017.

f) Rajgamar 33 kV power feeder is facing frequent power failure and therefore, needs elaborate maintenance and change of insulators, etc.

g) Power failure from Kotmi sub-station for a period of 57 hours due to faults in 33 kV overhead line feeding power from Kotmi sub-station to Rani Atari sub area.

h) Two 33 kV feeders are coming from Bishrampur to Bhatgaon, which are dedicated feeders to supply 33 kV power to Bhatgaon Area, SECL. This line is facing voltage problems and due to low voltage, SECL's machines are giving frequent problem, thereby affecting the production.

Petitioner's Reply

CSPDCL submitted that the above said objections are beyond the scope of this Petition and therefore, it is difficult for CSPDCL to respond to its objections/proposals.

Commission's View

Most of the issues raised by SECL are beyond the scope of the present Tariff Petition filed by CSPDCL for FY 2018-19. However, the Commission has taken up this issue separately with the licensee.

2.2.25 Miscellaneous Objections

The other Objectors submitted that the following observations can be made from the Tariff Petition of CSPDCL:

a) Despite being rich in natural and human resources and being energy surplus State, the electricity bills are increasing, because, Energy Charges and Fixed Charges are billed separately.

b) There is no audit of the huge amount received against agriculture subsidy for agriculture pumps.

c) There is no need for unbundling CSEB and the Commission should learn from the States like Tamil Nadu, Kerala, Himachal Pradesh and others where there is one single Electricity Company undertaking all the electricity business.

d) Meter reading has been sub-contracted to private parties, who are issuing bills at their discretion, which results in unrest among the citizens.

e) Under the Saubhagya scheme, CSPDCL is organising camps and receiving application for new connections rather than conducting door-to-door survey and providing connection.

f) A separate tariff category should be created in line with LV-7, to boost up manufacturing of solar related equipment like solar cooker, solar heater, solar lamp, solar cell, etc. The condition of minimum Contract Demand of 50 kW for solar related equipment, devices and assemblies, should be reduced.

Petitioner's Reply

CSPDCL submitted that the proposal for creating a separate category for solar manufacturing units relates to creation of a new tariff category and goes against the Commission's efforts in its earlier Orders to rationalize the present tariff structure which is simple, practical and easy to implement. This proposal is likely to result in distortions as the existing tariff structure already contains a specific tariff for IT Industries both under HT&LT. Further, that under the present tariff design, LV-2 Non-domestic and HV-3 other Industrial general purpose Non-Industrial tariff category can be applicable to proposed Industries by default.

Commission's View

The Commission's detailed Tariff Philosophy and categorisation are elaborated in Chapter 8 of this Order.

2.3 Objections on Provisional True-up for FY 2016-17 for CSPGCL

2.3.1 Discrepancy in Cost of power and quantum sold by CSPGCL

The Objector submitted that:

a) The per unit cost of power purchased by CSPDCL from CSPGCL stations has increased by about 49% against the per unit cost approved by the Commission in the MYT Order.

b) Such hike/increase cannot be attributed to costly power purchase from Marwa Thermal Power Plant alone. Marwa TPP has also generated 203.42 MU of Infirm power, which is available only at Rs. 1.50 per kWh, as approved earlier by the Commission in similar cases.

c) The quantum of power purchased, as submitted by CSPDCL, is 7851.49 MU from Central Generating Station and 253.82 MU from NSPCL, as against the 7704.02 MU from CGS and 247.22 MU from NSPCL, as submitted by CSPTCL. Such discrepancy has resulted into a huge unreconciled power purchase amount of Rs. 422.70 Crore.

d) Power Purchase quantum from CSPGCL stations during FY 2016-17 is not reconciling with the quantum submitted by CSPGCL and CSPTCL in their respective submissions, as shown in the Table below:

Power Station	CSPGCL	CSPTCL	CSPDCL
DSPM	3,672.68	3,672.68	Not Submitted
HTPS	5,353.65	5,362.85	
Korba (W)	3,155.96	3,155.96	
KTPS	2,000.85	2,000.85	
Hasdeo-Bango	146.62	146.46	
Marwa (Infirm)		203.42	
Marwa (Firm)		2,170.75	
	Not Submitted	16,712.97	16,727.30

e) Similarly, the cost of power purchased from CSPGCL during FY 2016-17 shows a unreconciled amount of Rs. 583.06 Crore, as shown in the Table below:

Particulars	Cost, Rs Crore
Revenue from Sale of Power (CSPGCL T.P. Pg. 89) (excluding Marwa)	4,473.41
Water and SLDC Charges	112.98
Marwa (Infirm) @1.50 (approved by Commission)	30.51
Marwa (Firm) @3.90 (approved by Commission)	846.59
Total	5,463.49
Power Purchase Cost submitted by CSPDCL	6,046.55
Difference (requires reconciliation)	583.06

f) From the above, it is quite clear that a huge amount of Rs. 583 Crore requires reconciliation with CSPGCL Accounts, which is not submitted before the Commission along with the True-up Petition for FY16-17. This unreconciled amount of Rs. 583 Crore is over and above the reported unreconciled amount of Rs. 422.70 Cr, hence, total amount which requires reconciliation is as high as Rs. 1,005.76 Cr.

g) From the submission made by CSPTCL in its Petition, it has been observed that CSPDCL has not procured any power from Central Generating Stations like Hirakud, KSTPS II and KSTPS III since August 2016 in spite of having allocated quota of power. No reason has been specified for the same.

h) Similarly, it is also observed that CSPDCL has procured power from Central Generating Stations like KSTPS-I, II and VII and K II only since August 2016 in spite of having allocated quota of power. No reason has been specified for the same.

Petitioner's Reply

a) CSPDCL has submitted provisional accounts of FY 2016-17. If the Commission desires, it may further submit power purchase invoices of various CGS which shows fixed and energy charge separately. CSPDCL added that in the current MS Excel model that CSPDCL has shared with the Commission, it has also submitted separate fixed and energy cost of procuring power from CGS from April to September 2017, to work out realistic projections for FY 2018-19.

b) CSPDCL has deducted Rs. 422.70 crore from the net power purchase cost to restrict its claim for the purpose of provisional true-up in line with the Provisional Accounts. Any deviation, whether positive or negative, post the reconciliation of power purchase cost and subsequent audit of the accounts

will be submitted along with detailed justification at the time of final True-up of the FY 2016-17.

Commission's View

The Commission has undertaken the Provisional True-up for FY 2016-17 based on the available data and shall undertake the final true-up once the Audited Accounts are available along with all reconciled amounts. The Commission's analysis of power purchase quantum and cost for the true-up for CSPDCL for FY 2016-17 is elaborated in Chapter 6 of this Order.

3 PROVISIONAL TRUE-UP FOR CSPGCL FOR FY 2016-17

3.1 Background

CSPGCL, in accordance with the MYT Regulations, 2015, filed the Petition for provisional Truing up for FY 2016-17 for its existing Thermal Generating Stations, viz., HTPS, KTPS (East), DSPM TPS, 500 MW Korba West TPP, and Hasdeo Bango Hydro power plant.

CSPGCL submitted that it has filed the Petition based on Provisional Annual Accounts for FY 2016-17. It submitted that CSPGCL is in the process of migrating to Ind-AS system of accounting practice, and the one-time exercise of mapping prevailing accounting practices to Ind-AS/IFRS may take some time, because of which finalisation of Accounts is still in process.

In accordance with the MYT Regulations, 2015, the Commission has undertaken provisional Truing up for FY 2016-17 based on unaudited/provisional Accounts submitted by CSPGCL. The final Truing up for FY 2016-17 shall be done on the basis of Audited Accounts.

3.2 Generation Capacity of Existing Generating Stations

The details of the existing Generating Stations (having Commercial Operation Date (COD) prior to FY 2016-17) is shown in the following Table:

Table 3-1: Generation Capacity (MW) of existing Generating Stations

Sr. No.	Particulars	No. of Units & Capacity (MW)
1	Korba East Thermal Power Station (KTPS)	(4x50) + (2x120) = 440 MW
2	Hasdeo Thermal Power Station (HTPS)	4x210 = 840 MW
3	1x500 MW Korba West Thermal Power Plant (KWTPP)	1x500 MW=500 MW
4	Dr. Shyama Prasad Mukherjee Thermal Power Station (DSPM)	2x250=500 MW
5	Mini Mata Hasdeo Bango Hydro Electric Project	3x40=120 MW

3.3 Commissioning of LDCC for KWTPP and allied issues

CSPGCL's Submission

CSPGCL submitted that as per Regulation 11.1 of the MYT Regulations, 2015, "uncontrollable factors" comprise factors that were beyond the control of the

applicant, and could not be mitigated by the Applicant. Further, CSPGCL submitted that in the Order dated March 31, 2017, the Commission held that:

> *"... It is noted that coal is being fed from the old LDCC and the power plant does not have any alternate arrangement for coal transportation. The transport by LDCC is much cheaper than the transport by any other means. Further, it was noted in the previous Order that delay in LDCC cannot be totally attributable to CSPGCL. In view of this, there appears some merit in submission of CSPGCL regarding the relaxation of PAF for HTPS and KWTPP. After considering all the relevant aspects into consideration and perusal of coal availability data, the Commission in exercise of its power to relax under Regulation 77 of MYT Regulations, 2012, revises the normative PAF to 81% for HTPS and KWTPP both ..."*

CSPGCL also submitted that the Commission, at the time of MYT Order, had allowed Long Distance Coal Conveyor (LDCC) capitalisation in FY 2017-18 in acknowledgement of uncontrollable factors after due diligence. CSPGCL further submitted that in the next Order, the Commission also acknowledged that there exists a substantive ground for relaxation in Plant Availability Factor (PAF) up to September 2017. CSPGCL also claimed that the constraint has led to critical coal stocks on daily basis. Therefore, CSPGCL has claimed that the issue of capitalisation in FY 2016-17 and relaxation in Normative PAF due to uncontrollable factors during the period are already settled issues.

As regards the status of work, CSPGCL submitted that the work at LDCC and cross over above the Railway Lines, was being rigorously pursued. Chief Secretary, GoCG, has intervened in the matter and stressed upon railway authorities for urgency of this work. CSPGCL claimed that it has worked out solutions for legal, administrative and technical issues and taken up the work expeditiously. CSPGCL submitted that it has made deposit with Railways against its demand note for shifting of signal and telecom cables. CSPGCL also submitted that erection of conveyor structure has been completed but sections covered under way leave right of Railway is yet to be completed. CSPGCL further claimed that since the 'Bridge Rules' (issued by Ministry of Railways, Government of India) have undergone changes, necessitating further amendments in drawings and designs, the revised drawings have been re-submitted to Railways, after due vetting by experts. Also, CSPGCL expected that the system may be fully operational in less than a year, after completion of work, detail safety checks and trial run.

CSPGCL claimed that as per Indian Railway Act 1889, Railways' permission for any crossover above the railway line, is a legal binding. Further, as per settled position of law, implications of such approval and change in conditions of approval qualify as Change in law.

In view of above, CSPGCL requested the Commission to consider Normative PAF for HTPS and KWTTP at the level allowed in the previous Order (True-up for FY 2015-16) by exercising its power under Regulations 12/83/85 of MYT Regulations, 2015.

CSPGCL submitted that Corporate Insolvency Resolution Process has been initiated against BOP lead contractor – M/s Tecpro Systems Ltd., which has been admitted by National Company Law Tribunal (NCLT). Further, NCLT has appointed Interim Resolution Professional (IRP). CSPGCL has made direct payments to sub-vendors/contractors after taking concurrence of M/s. Tecpro and has got work done. This has resulted in delay in completion of some last mile works, which do not have immediate effect on performance. Hence, CSPGCL has made no prayer for relaxation of performance norms on this count of BOP works, other than LDCC works.

In view of the above, CSPGCL requested the Commission to allow extension of cut-off date by a year. Further, CSPGCL clarified that no cost escalation (beyond the approved capital cost of Rs. 3,719 Crore) has been prayed for.

Commission's View

Regarding the commissioning of LDCC for KWTPP, the Commission in Order dated March 31, 2017 held as under:

> *"In the previous Order, the Commission has allowed the relaxation to KWTPP as a special case. The Commission has recognised the reasons for such relaxation, which includes not only operational difficulties but also the overall coal shortage scenario in FY 2014-15. In this Petition also, CSPGCL has submitted various arguments seeking relaxation in performance parameters of HTPS and KWTPP. The norms once fixed have to be complied with and relaxation is an exception. The various arguments submitted for problems relating to ash handling, new technologies and so on cannot be agreed to. However, the only submission which appears justifiable is lower availability of coal. It is noted that coal is being fed from the old LDCC and the power plant does not have any alternate arrangement for coal transportation. The transport by LDCC is much cheaper than the transport by any other means. Further, it was noted in the previous Order that delay in LDCC cannot be totally attributable to CSPGCL.* ***In view of this, there appears some merit in submission of CSPGCL regarding the***

relaxation of PAF for HTPS and KWTPP. After considering all the relevant aspects into consideration and perusal of coal availability data, the Commission in exercise of its power to relax under Regulation 77 of MYT Regulations, 2012, revises the normative PAF to 81% for HTPS and KWTPP both. The consequences of performance below this level shall be treated in accordance with the applicable Regulations.

At the same time CSPGCL is directed to make all efforts for expeditious completion of new LDCC and submit a status report within 3 months from the issue of this Order. Further, ***CSPGCL may note that no relaxation in PAF on this ground will be considered after Sept 2017****." (emphasis added)*

From the above, it is seen that the normative PAF for HTPS and KWTPP has been revised to 81% after taking into account the issue of delay in commissioning of LDCC. Further, the Commission directed CSPGCL to make all efforts for expeditious completion of new LDCC. As regards the anticipated date of commissioning of LDCC, CSPGCL submitted that LDCC is expected to be commissioned in less than a year. No firm date has been submitted for commissioning. So, the Commission sought the present status of the work. In this regard, CSPGCL submitted the following status of work post the filing the Petition:

(1) Sr. Divisional Engineer (East), SECR, Bilaspur has raised a demand note on December 28, 2017 towards way leave permission process. CSPGCL submitted the details on January 1, 2018.

(2) Further, CSPGCL submitted the Launching scheme for the work of overhead crossing of rail track by coal conveyor system to Sr. Divisional Engineer (East), SECR, Bilaspur on January 4, 2018.

(3) The approved drawings were also submitted for issue of land lease and permission as per Railway/Government norms on January 6, 2018. A request was also filed for intimation of Codal Charges to be submitted. Order of work has already been placed on M/s Tecpro and estimate has already been submitted to Railways.

(4) The final way leave permission along with permission to start excavation work from Indian Railways is awaited. The matter is being pursued on daily basis.

The Commission notes that the coal to HTPS is fed from the existing coal conveyor system for power plant, which is around 14 km long. No alternate system (MGR/Rail network) exists. At present, KWTPP is also getting supply from the same existing coal conveyor system. The Commission, in its Order dated March 31, 2017 had

relaxed the PAF norms considering the merit in the submission of CSPGCL regarding the lower coal availability. However, during FY 2016-17, the availability of coal was not an issue. The delay in commissioning of LDCC led to critical coal stocks on daily basis. The Commission sought clarification from CSPGCL regarding the reasons for not opting for the alternative methods for transporting the coal from bunker to plants. In this regard, CSPGCL submitted as under:

Transportation of Coal by Road – Coal transportation by road surrounded by dense population is not a feasible solution. Further, Korba falls in the critically polluted area. In such areas, open coal transportation may attract the wrath of Pollution Control authorities. Also, the sheer number of trips plying through the city is not desirable. Hence, the coal transport by road is not feasible.

Transportation of Coal by Rail – For transporting coal by Rail to HTPS and KWTPP requires considerable land acquisition involving residential private land, which is an added limitation and challenge for transportation of coal by rail. At present, coal transportation is being done at KTPS through own wagons and locomotives, but major part of rail network is controlled by Indian Railways. Similarly, coal transportation is wholly done by Indian Railways at DSPM TPS. The capital cost for MGR System or rail network and LDCC is approximately the same. However, the O&M cost incurred on coal transportation is shown in the following Table:

Table 3-2: Coal Transportation Charges as submitted by CSPGCL

Station	Transportation Charges (Rs./MT)		
	2014-15	2015-16	2016-17
HTPS	71.80	77.73	73.78
KTPS	94.85	158.23	180.07
DSPM	267.43	328.89	243.11

Further, based on the best estimates, the truck transportation cost can be presumed as about 1.5 times the cost of transportation through Rail. If the above differential costing is converted to the impact on Energy Charge Rate (ECR), then with normative benchmarks of HTPS, the impact works out to additional ECR of about 8 paise/kWh for transportation through own railway system, about 14 paise/kWh for transportation through Indian Railways, and about 20 paise/kWh for road transportation. From cost economy point of view too, the coal transport through LDCC is the best option. The transportation of coal through LDCC offers an inherent economic advantage over all other proven means of coal transportation.

From the above submission of CSPGCL, it is observed that, at present, no alternative route, other than existing coal conveyor system, is feasible for transportation of coal for HTPS and KWTPP. It is noted that coal is being fed from the old LDCC and the power plant does not have any alternate arrangement for coal transportation. The transport by LDCC is much cheaper than the transport by any other means. The delay in commissioning of LDCC is affecting the operation of HTPS and KWTPP. However, from the submission of CSPGCL, it is noted that this delay cannot be attributable to CSPGCL.

In view of this, there appears to be some merit in submission of CSPGCL regarding the relaxation of PAF for HTPS and KWTPP. The reasons stated by the Petitioner appear to be not under the control of the Generating Company. Therefore, being special and exceptional circumstances, the Commission in exercise of its powers to relax under Regulation 83 of MYT Regulations, 2015, revises the normative PAF to 81% for HTPS and KWTPP for FY 2016-17. Being provisional true up at this stage, no relaxation has been considered in any other parameter for HTPS and KWTPP. This issue will be taken up during final true up. The consequences of performance below this level shall be treated in accordance with the applicable Regulations.

At the same time, the Commission is of the view that the commissioning of LDCC cannot be delayed endlessly. Moreover, the relaxation in PAF norms does not relieve CSPGCL of the responsibility of taking strenuous efforts for expeditious completion of new LDCC. To understand this, the Commission sought details of pending activities with timelines from CSPGCL, which were submitted by CSPGCL as under:

(1) Structure foundation work shall be done immediately after start of excavation work. Erection of structure and fabrication work on both sides of TRs is expected to be completed in *Two months* subject to clearance of Railways. Further, as per railway norms, the settlement period for foundation is *45 days.*

(2) Conveyor galleries (3 Nos.) shall be erected depending upon block allowed by Railway. Railway line outage permission may take about *a month* after erection of Trestles on both side of railway track. Once conveyor galleries are erected, the work of belt loading shall be initiated. As per standard safety practices segment wise trials shall take *a month time.*

(3) After completion, the integration with old system shall also be undertaken. Simultaneously, PLCC interlocks and protection checks and combined run shall take about *Two months.*

(4) A settlement period to resolve teething issues minimum about *Three months'* time will also be required. The integrated system is expected to be fully commissioned within a year.

The activity-wise timelines as submitted by CSPGCL are summarised in the following Table:

Work	**Nos. of days**
Foundation Casting and Settlement	45
Erection of Structure	60
Railway permission for installation of galleries	30
Fabrication, welding and belt loading	60
Integration with old system along with PLCC interlock protection check and trial run	60
Settlement period to resolve teething issues	90

From the above submission of CSPGCL, it is noted that the LDCC work may be completed by the end of FY 2018-19.

Further, the Commission notes that Corporate Insolvency Resolution process has been initiated against BOP contractor, M/s. Tecpro Systems Ltd. The Commission sought the action plan for completion of LDCC work in this situation. CSPGCL submitted that action plan to tackle vendor crisis was put in place well before the formal declaration of Corporate Insolvency Resolution of M/s. Tecpro. It is noted that KWTPP work has been considered as *Ongoing Project* in the proceedings. At present, there is no bar on IRP appointed by NCLT on this issue.

Apart from LDCC work, it is also noted that other minor works of KWTPP are also pending. CSPGCL submitted that the balance non-plant work amounts to Rs. 20 Crore. The pending work mostly relates to air-conditioning-ventilation and other services in the administrative building, widening and tarring of various roads, construction of certain service roads, etc. As per contract, in case of short closure, CSPGCL has right to carry out the works through other vendors, at the cost and consequences of M/s. Tecpro, which can be recovered from the retention amount held by CSPGCL. Thus, no cost escalation will occur.

The Commission in earlier Order has approved cut-off date for additional capitalisation as September 30, 2017. Considering the above, the Commission finds it necessary to extend the cut-off date for additional capitalisation approved for KWTPP. After considering all relevant aspects in this regard, the

Commission approves the extension of cut-off date till January 31, 2019, for completion of additional capitalisation approved by KWTPP. The Commission directs CSPGCL to make all possible efforts to complete LDCC work and other pending works on or before January 31, 2019. No further extension shall be allowed by the Commission beyond January 31, 2019 for additional capitalisation. No escalation of cost shall be considered pertaining to such extension. The approved project cost of KWTPP shall be considered as final.

3.4 Normative Annual Plant Availability Factor (NAPAF)

CSPGCL's submission

CSPGCL submitted the actual PAF for its stations as compared to NAPAF approved by the Commission in the MYT Order, as shown in the Table below:

Table 3-3 Actual Plant Availability Factor for FY 2016-17 as submitted by CSPGCL

Station	NAPAF	Actual PAF
KTPS	65.45%	58.27%
HTPS	83.00%	80.63%
DSPM	85.00%	93.10%
KWTPP	85.00%	76.50%

As regards DSPM, CSPGCL submitted that DSPM has performed better than the norms stipulated in the MYT Order. CSPGCL has not prayed for revision / relaxation (except for the issues such as Transit Loss / IOWC, which are already covered in Appeal No. 222 of 2015, for which the consequential impact on the instant Petition, if any, shall occur in accordance with the final Judgment in the Appeal) and has proposed to share the gains as per MYT Regulations, 2015.

As regards HTPS and KWTPP, as discussed in earlier Section of this Chapter, CSPGCL prayed the Commission to approve the NAPAF of 81% for HTPS and KWTPP after exercising the powers conferred under Regulations 12/83/85 of the MYT Regulations, 2015.

As regards KTPS, CSPGCL submitted that during the year, the coal supply from SECL was so low that even with Normative SHR and Auxiliary Consumption, KTPS could not have operated at PLF more than 60.52%. Further, CSPGCL claimed that theoretical options such as import of coal or procurement of high grade coal through e-auction are infeasible for the plant as such coal has very high CV and blending becomes must for operation of such an old plant. Further, CSPGCL cited the report of

the Group formed by CEA under the directions of Secretary (Power) for studying the range of blending of imported coal with domestic coal. CSPGCL submitted that the existing plant does not have facility as proposed in the said report, and its installation will need huge capital investments. Further, CSPGCL claimed that with imminent closure, it will not be prudent to make such investments. The Commission has also directed CSPGCL to avoid capital investments. Further, CSPGCL submitted that since in the old plants, lot of work is to be done manually, non-achievable targets put pressure on plant authorities, particularly O&M authorities to bypass safe operation practices and maintenance with plant operation. CSPGCL submitted that in the previous Order, Commission's view was:

> *"…Regarding the availability of coal, the Commission is of the view that it is the primary responsibility of the Generating Station to arrange the supply of coal. KTPS is equipped with adequate FSA for supply of Annual Contracted Quantity of 27 lakh tonnes. Any shortfall in supply of coal is the responsibility of CSPGCL and the same has to be sorted out with Coal India Ltd. …"*

In the above context, CSPGCL submitted that FSA allows Coal India to supply coal from any mine. In the beginning of FY 2016-17, Coal India started supplying the high-grade coal from Surakachar Mines, which resulted in spiking of ECR and high FCA. CSPGCL submitted that State Government had to intervene due to severity of the matter. In consumer interest, CSPGCL made continuous and rigorous pursuance to arrest the supply from Surakachar. CSPGCL also claimed that PAF of KTPS was in the range of 57% to 58%, which is optimal as compared to other plants in India of similar capacity. CSPGCL requested the Commission to revise the PAF norms for CSPGCL to 'maximum achievable level'.

Commission's View

The Commission has verified the actual availability of the Generating Stations for FY 2016-17 through CSLDC's certificate as submitted by CSPGCL. The Commission has considered the actual availability as per CSLDC's certificate for FY 2016-17 for undertaking sharing of gains and losses.

As regards DSPM, the Commission approves the NAPAF of 85% as per the MYT Order. Further, for HTPS and KWTPP, as discussed in earlier Section of this Chapter, the Commission approves NAPAF of 81% for both Stations, after relaxation.

In case of KTPS, the Commission notes that CSPGCL has already filed an Appeal regarding the issue of PAF before Hon'ble APTEL in Appeal No. 222 of 2015. However, CSPGCL submitted that the facts and grounds made in Appeal No. 222 of

2015. CSPGCL sought relaxation in PAF on account of shortage of coal supply from Coal India. The Commission notes that arrangement of fuel is the primary responsibility of generator. Further, it is noted that Coal India had made the coal available from alternate source from Surakachar Mines. This alternate coal arrangement has led to increase in ECR and thereby FCA, which put an additional burden on the consumer. The Commission notes that the Government of Chhattisgarh has intervened the matter and decided to stop off-take of coal from Surakachar Mines. All this has led to shortage of supply of coal to KTPS and thereby lower availability. The Commission notes that this is a special case and additional burden of cost has been avoided in the interest of the consumer. In view of the above, the Commission finds merit in the submissions of CSPGCL and approves NAPAF of 60.52% for KTPS for FY 2016-17 by exercising powers under Regulation 83 of MYT Regulations, 2015. The Commission further clarifies that this relaxation has been allowed as special case and the same shall not be considered as precedence for other matters.

The PAF approved by the Commission for provisional True-up of FY 2016-17 is shown in the following Table:

Table 3-4: Approved Plant Availability Factor for FY 2016-17

Station	NAPAF	Actual PAF
KTPS	60.52%	58.27%
HTPS	81.00%	80.63%
DSPM	85.00%	93.10%
KWTPP	81.00%	76.50%

3.5 Auxiliary Energy Consumption

CSPGCL's Submission

CSPGCL has submitted the actual Auxiliary Energy Consumption for its stations for FY 2016-17, as shown in the Table below:

Table 3-5: Auxiliary Energy Consumption for FY 2016-17 as submitted by CSPGCL

Station	MYT Order	CSPGCL's Submission
KTPS	11.25%	12.65%
HTPS	9.70%	9.76%
DSPM	9.00%	7.78%

Station	MYT Order	CSPGCL's Submission
HBPS	1.00%	0.61%
KWTPP	5.25%	5.00%

CSPGCL submitted that all its stations performed better than the norms except KTPS and HTPS.

As regards KTPS, CSPGCL submitted that since Auxiliary Energy Consumption (AEC) norms adopted in the Regulation / Order are same as were adopted in previous Regulation / Order and relaxation on these parameters is subjudice in the Appeal No. 222 of 2015, CSPGCL had not made detailed submissions for relaxation in these norms. CSPGCL claimed that by taking CPRI Report values and with arithmetical corrections in calculations, normative AEC works out to 13.2%. CSPGCL also claimed that actual AEC achieved by KTPS was better than the corrected norms. Accordingly, CSPGCL requested the Commission to consider aforesaid corrections in norms and to allow gains accordingly.

As regards HTPS, CSPGCL submitted that CERC in the IEGC has acknowledged that outage has definite impact on AEC and Station Heat Rate (SHR). CSPGCL further submitted that the Commission had also acknowledged the above principle in the MYT Order as under:

> *"... As far as CSPGCL's prayer for allowing impact of outage on norms of operation is concerned, the relaxation in norms shall be decided at the time of true-up in accordance with the provisions in IEGC under the heading "Technical minimum schedule for operation of CGS and ISGS ..."*

CSPGCL claimed that PAF, AEC, and SHR for HTPS suffered due to partial load operations caused by uncontrollable problem in LDCC for coal. CSPGCL further requested that the normative AEC for HTPS should be adjusted in accordance with the MYT Order, (as per computation methodology given under Indian Electricity Grid Code) to 9.76%.

Commission's Views

CSPGCL has filed Appeal No. 222 of 2015 before the Hon'ble APTEL on the issue of AEC for KTPS as approved in Order dated May 23, 2015. Since, the matter is sub-judice before the Hon'ble APTEL, AEC has been considered as approved for KTPS in the MYT Order.

As regard HTPS no relaxation in AEC has been considered at this stage.

The actual AEC for FY 2016-17 has been considered as submitted by CSPGCL for the purpose of sharing of efficiency gains and losses. Further, the normative AEC for FY 2016-17 has been considered for computation of normative net generation in the provisional true-up for FY 2016-17, as shown in the Table below:

Table 3-6: Approved Auxiliary Energy Consumption for FY 2016-17

Station	MYT Order	Normative for Provisional Truing up	Actuals
KTPS	11.25%	11.25%	12.65%
HTPS	9.70%	9.70%	9.76%
DSPM	9.00%	9.00%	7.78%
HBPS	1.00%	1.00%	0.61%
KWTPP	5.25%	5.25%	5.00%

3.6 Gross Generation and Net Generation

CSPGCL's Submission

CSPGCL submitted the actual gross generation and net generation for FY 2016-17 as shown in the Table below:

Table 3-7: Gross Generation and Net Generation for FY 2016-17 as submitted by CSPGCL (MU)

Station	MYT Order		Actual	
	Gross Generation	Net Generation	Gross Generation	Net Generation
KTPS	2,325.78	2,064.13	2,290.56	2,000.85
HTPS	6,107.47	5,515.05	5,932.51	5,353.65
DSPM	3,723.00	3,387.93	3,982.41	3,672.68
HBPS	274.00	271.26	147.52	146.62
KWTPP	3,723.00	3,527.54	3,322.10	3,155.96
Total	**16,153.25**	**14,765.91**	**15,675.10**	**14,329.76**

Commission's Views

The billing mechanism has been changed from October 2014 to three-part ABT billing, wherein scheduled energy is being considered. However, for the purpose of provisional true-up, the Commission has relied on actual generation instead of scheduled generation. The impact of any variation on account of actual generation vis-à-vis scheduled generation shall be treated separately. The Commission has

considered the actual Gross Generation and actual Net Generation as submitted by CSPGCL, duly verified with the monthly Statements, for the purpose of sharing of efficiency gains and losses.

Further, the normative AEC for FY 2016-17 has been considered in the computation of normative net generation in the provisional true-up for FY 2016-17, as shown in the Table below:

Table 3-8: Gross and Net Generation for FY 2016-17 approved by the Commission (MU)

Station	Normative		Actual	
	Gross Generation	Net Generation	Gross Generation	Net Generation
KTPS	2,522.88	2,239.06	2,290.56	2,000.85
HTPS	6,107.47	5,515.05	5,932.51	5,353.65
DSPM	3,723.00	3,387.93	3,982.41	3,672.68
HBPS	274.00	271.26	147.52	146.62
KWTPP	3,723.00	3,527.54	3,322.10	3,155.96
Total	**16,350.35**	**14,940.84**	**15,675.10**	**14,329.76**

3.7 Gross Station Heat Rate

CSPGCL's Submission

CSPGCL submitted the actual Gross Station Heat Rate (GSHR) vis-à-vis normative GSHR approved for FY 2016-17 for existing Generating Stations, as shown in the Table below:

Table 3-9: Actual GSHR for FY 2016-17 (kcal/kWh)

Station	MYT Order	Actual
KTPS	3,110	3187.66
HTPS	2,650	2671.78
DSPM	2,500	2435.54
KWTPP	2,375	2494.55

CSPGCL submitted that DSPM has performed better than the norms specified, while HTPS and KWTPP have under-achieved in terms of GSHR mainly due to partial loading of the plant. All the above stations were also subjected to Backing Down

Instructions (BDIs) from SLDC and the impact of backing down on SHR is without prejudice to the submissions, contentions and claims of CSPGCL in the matter.

As regards KTPS, CSPGCL submitted that since SHR norms adopted in the Regulation / Order are same as were adopted in previous Regulation / Order and relaxation on these parameters is sub-judice in Appeal No. 222 of 2015, CSPGCL had not made detailed submissions for relaxation in these norms. Further, CSPGCL submitted that by taking CPRI Report values and with arithmetical corrections in calculations, SHR works out to 3250 kcal/kWh. CSPGCL requested the Commission to consider aforesaid corrections in norms and to allow gains accordingly for provisional True-up for CSPGCL for FY 2016-17.

As regards HTPS and KWTPP, CSPGCL submitted that CERC in the IEGC has acknowledged that outage has definite impact on AEC and SHR. CSPGCL claimed that AEC and SHR for HTPS and KWTPP suffered due to partial load operations caused by uncontrollable problem in LDCC for coal.

CSPGCL requested that the normative SHR for HTPS and KWTPP be adjusted as per computation methodology given under Indian Electricity Grid Code, from 2650 kcal/kWh and 2375 kcal/kWh to 2671.78 kcal/kWh and 2428.44 kcal/kWh, respectively, for provisional True-up for FY 2016-17.

Commission's Views

CSPGCL has filed Appeal No. 222 of 2015 before the Hon'ble APTEL on the issue of SHR for KTPS as approved in Order dated May 23, 2015. Since, the matter is sub-judice before the Hon'ble APTEL, SHR has been considered as approved for KTPS in the MYT Order. Further, as regards HTPS and KWTPP, the issue has already been addressed in earlier Section of this Chapter. Hence, no relaxation in SHR has been considered at this stage. For DSPM, GSHR has been considered as approved in the MYT Order.

The actual SHR for FY 2016-17 has been considered as submitted by CSPGCL for the computation of actual Fuel Cost. Further, the normative SHR for FY 2016-17 has been considered for computation of normative Fuel Cost. SHR approved by the Commission after provisional truing up for FY 2016-17 is shown in the following Table:

Table 3-10: Approved GSHR in Provisional True-up for FY 2016-17 (kcal/kWh)

Station	MYT Order	Normative for Provisional Truing up	Actual
KTPS	3,110	3,110	3187.66
HTPS	2,650	2,650	2671.78
DSPM	2,500	2,500	2435.54
KWTPP	2,375	2,375	2494.55

3.8 Secondary Fuel Oil Consumption

CSPGCL's Submission

CSPGCL has submitted the actual Secondary Fuel Oil Consumption (SFOC) for FY 2016-17 as 1.59 ml/kWh for KTPS, 0.61 ml/kWh for HTPS, 0.19 ml/kWh for DSPM, and 0.51 ml/kWh for KWTPP. The actual SFOC is lower than normative for all generating stations, except KWTPP. For KWTTP, CSPGCL submitted that MYT Regulations, 2015 forced steep reduction in norm from 1 ml/kWh to 0.50 ml/kWh, but the deviation from the norm was very nominal, i.e. 0.01 ml/kWh, which was attributed to part load operations due to coal shortage.

Commission's Views

For the purpose of sharing of efficiency gains/losses, actual SFOC for FY 2016-17 has been considered vis-a-vis normative SFOC considered for computation of normative fuel cost, as shown in the Table below:

Table 3-11: Approved SFOC for FY 2016-17 (kcal/kWh)

Station	MYT Order	Normative considered for Provisional Truing up	Actual
KTPS	2.00	2.00	1.59
HTPS	0.80	0.80	0.61
DSPM	0.50	0.50	0.19
KWTPP	0.50	0.50	0.51

3.9 Transit Loss

CSPGCL's Submission

CSPGCL has performed better in transit loss than normative approved by the Commission for FY 2016-17 for all existing Generating Stations. CSPGCL has

submitted the actual transit loss as 1.13% for KTPS, 0.19% for HTPS, 0.13% for DSPM, and 0.19% for KWTPP.

Commission's Views

As regards the categorisation of DSPM as pithead or non-pithead, CSPGCL has filed an appeal before the Hon'ble APTEL against the Tariff Order dated May 23, 2015. As the matter is sub-judice, the normative transit loss of 0.20% has been considered for DSPM treating it as a pithead station as considered in MYT Order. The actual transit loss for FY 2016-17 has been considered as submitted by CSPGCL for the purpose of sharing of efficiency gains and losses. Further, the normative transit loss for FY 2016-17 has been considered for computation of normative fuel cost for FY 2016-17, as shown in the Table below:

Table 3-12: Approved Transit loss for FY 2016-17

Station	MYT Order	Normative considered for Provisional Truing up	Actual
KTPS	1.15%	1.15%	1.13%
HTPS	0.20%	0.20%	0.19%
DSPM	0.20%	0.20%	0.13%
KWTPP	0.20%	0.20%	0.19%

3.10 Calorific Value and Price of Fuel

CSPGCL's Submission

CSPGCL submitted the actual calorific value and price of fuels for its thermal power stations for FY 2016-17, as shown in the following Table:

Table 3-13: Actual Calorific Value and Price of fuels for FY 2016-17

Station	Coal		Secondary Fuel (HFO +HSD)	
	Calorific Value (kcal/kg)	Actual Price of Fuel (Rs./MT)	Calorific Value (kcal/kL)	Actual Price of Fuel (Rs./kL)
KTPS	3266.71	2217.59	10000	33615.47
HTPS	3378.60	1713.72	10000	43270.25
DSPM	3587.80	2039.11	10000	50758.17
KWTPP	3428.19	1713.72	10000	43270.25

Commission's View

As regards HTPS and KWTPP, since the common facility is used for transportation of coal, the Commission sought clarification from CSPGCL regarding methodology adopted/process followed for allocation of coal to KWTPP and HTPS during FY 2016-17. CSPGCL clarified that the methodology adopted in the present Petition is same as settled by the Commission in previous year true-up. Accordingly, landed price of coal has been considered on integrated basis and the same rate has been used for computation of fuel cost for both the plants. The Commission accepts the submission of CSPGCL and accordingly considered the landed price of coal for HTPS and KWTPP.

The details of month-wise Gross Calorific Value (GCV) for each Generating Station for FY 2016-17 were scrutinised. The calorific values of fuels for FY 2016-17 have been considered as submitted by CSPGCL. The actual prices of Secondary Fuel Oil for FY 2016-17 have been considered same as submitted by CSPGCL. The landed price of coal has been re-computed considering the approved transit and handling loss for FY 2016-17, for computation of normative Fuel Cost.

The calorific value of fuel and price of fuel considered by the Commission for computation of normative fuel cost for FY 2016-17 is shown in the following Table:

Table 3-14: Calorific Value and Price of fuels for FY 2016-17 approved by the Commission

Station	Coal		Secondary Fuel (HFO +HSD)	
	Calorific Value (kcal/kg)	Normative Price of Fuel (Rs./MT)	Calorific Value (kcal/kL)	Normative Price of Fuel (Rs./kL)
KTPS	3,266.71	2,221.29	10,000	33,615.47
HTPS	3,378.60	1,713.81	10,000	43,270.25
DSPM	3,587.80	2,040.64	10,000	50,758.17
KWTPP	3,428.19	1,713.81	10,000	43,270.25

3.11 Fuel Cost

Commission's Views

Based on the approved performance parameters, calorific values of fuels and fuel prices, the normative fuel cost has been computed for FY 2016-17 as shown in the Table below:

Table 3-15: Station-wise Approved Fuel Cost in Provisional True-up for CSPGCL for FY 2016-17

Station	Actual					Normative Approved after Provisional True-up				
	Cost of Coal (Rs. Crore)	Cost of Oil (Rs. Crore)	Total (Rs. Crore)	Net Generation (MU)	Fuel cost per unit (Rs./kWh)	Cost of Coal (Rs. Crore)	Cost of Oil (Rs. Crore)	Total (Rs. Crore)	Net Generation (MU)	Fuel cost per unit (Rs./kWh)
KTPS	493.18	12.27	505.45	2000.85	2.53	530.09	16.96	547.05	2239.06	2.44
HTPS	802.13	15.75	817.87	5353.65	1.53	818.50	21.14	839.64	5515.05	1.52
DSPM	550.82	3.90	554.72	3672.68	1.51	528.32	9.45	537.77	3387.93	1.59
KWTPP	413.41	7.37	420.78	3155.96	1.33	441.10	8.05	449.16	3527.54	1.27
Total	**2259.54**	**39.28**	**2298.82**	**14183.15**	**1.62**	**2318.01**	**55.60**	**2373.61**	**14669.58**	**1.62**

3.12 Annual Fixed Charges for CSPGCL

Regulation 35 of the MYT Regulations, 2015 specifies the components of Annual Fixed Charges (AFC) for CSPGCL as under:

(a) Return on Equity;

(b) Interest and Finance charges;

(c) Depreciation;

(d) Interest on Working Capital;

(e) Operation and Maintenance Expenses and;

Less:

(f) Non-Tariff Income

In addition to the above, the Commission has approved the Contribution to Pension Fund as a part of AFC in the MYT Order for Control Period from FY 2016-17 to FY 2020-21.

3.13 Capital Cost and Additional Capitalisation

CSPGCL's Submission

CSPGCL has considered the opening capital cost and capital structure of existing Thermal and Hydro Stations same as the closing values for FY 2015-16 as approved in True-up Order. The additional capitalization during the year has been considered as per provisional Annual Accounts/Fixed Asset Register for FY 2016-17. CSPGCL has segregated the capital expenses and R&M expenses, in compliance with the directives of the Commission and in line with the approach adopted by the Commission in Order dated June 12, 2014 and subsequent letter No. 1705 dated October 27, 2014.

Further, CSPGCL has also considered de-capitalisation towards recoveries/reconciliation of certain sub-components, which were already capitalised, instead of considering under Other Income.

As regards KWTPP, post preparation of accounts last year, CSPGCL noticed that correction entry in the GFA was required due to migration of the accounting software. Accordingly, CSPGCL had reduced the additional capitalization by Rs. 90.12 Crore in FY 2015-16. CSPGCL submitted that as the same entry has already been considered in True-up for FY 2015-16, hence, the same is not considered for FY 2016-17. During FY 2016-17, additional capitalisation of Rs. 12.81 Crore was done. The overall capitalisation of the project till date is Rs. 3588.52 Crore, which is within the approved project cost of Rs. 3719.37 Crore.

Commission's Views

The station-wise additional capitalisation submitted by CSPGCL and additional capitalisation incurred as per the Provisional Annual Accounts for FY 2016-17 have been duly scrutinised. The Commission has considered the additional capitalisation for KTPS, HTPS, DSPM and Hasdeo Bango as submitted by CSPGCL and as per the provisional accounts of FY 2016-17.

The capitalisation of KWTPP has been scrutinized in line with the capital expenditure approved in Order dated September 22, 2015. It was found that the additional capitalisation of Rs. 12.81 Crore for KWTPP, after reversal of the interest on advance to contractor of Rs. 13.74 Crore, is in order. As regards the correction entry in GFA relating to migration of accounting software, the Commission has not considered any adjustment in FY 2016-17 as it has already been considered in True-up for FY 2015-16.

The additional capitalisation approved in the provisional Truing up for FY 2016-17 is shown in the Table below:

Table 3-16: Approved Additional Capitalisation in true up for FY 2016-17 (Rs. Crore)

Station	MYT Order	CSPGCL Petition	Approved after provisional true up
KTPS	7.00	6.86	6.86
HTPS	11.30	32.00	32.00
DSPM	3.96	2.07	2.07
HBPS	-	-	-
KWTPP	-	12.81	12.81
Total	**22.26**	**53.75**	**53.75**

3.14 Means of Finance for Additional Capitalisation

CSPGCL's submission

CSPGCL submitted that the actual equity addition towards additional capitalisation is higher than 30%. However, in line with the provision of Regulations 17.1 and 17.3 of the MYT Regulations, 2015, debt:equity ratio of 70:30 has been considered for the additional capitalisation in FY 2016-17.

Commission's Views

As regards the funding of additional capitalisation, the Commission notes that the actual equity addition is more than 30% as per the Provisional Accounts for FY 2016-17. The Commission has considered the normative debt:equity ratio of 70:30 in accordance with MYT Regulations, 2015. The equity in excess of 30% of capitalisation has been considered as normative loan for the purpose of provisional Truing up. However, the Commission may review on actual equity deployed at time of final truing up. The means of finance for additional capitalisation for FY 2016-17 is approved as shown in the following Table:

Table 3-17: Approved Means of Finance for existing stations for FY 2016-17

(Rs. Crore)

Station	CSPGCL Petition			Approved after Provisional True up		
	Equity	Debt	Total	Equity	Debt	Total
KTPS	2.06	4.80	6.86	2.06	4.80	6.86
HTPS	9.60	22.40	32.00	9.60	22.40	32.00
DSPM	0.62	1.45	2.07	0.62	1.45	2.07
HBPS	-	-	-	-	-	-
KWTPP	3.84	8.97	12.81	3.84	8.97	12.81
Total	**16.12**	**37.62**	**53.75**	**16.12**	**37.62**	**53.75**

3.15 Depreciation

CSPGCL's Submission

As regards DSPM and KWTTP, CSPGCL submitted that the depreciation has been computed by applying the weighted average depreciation rate on the average regulatory GFA during the year. The weighted average depreciation rate has been computed by applying the category-wise scheduled rates specified in Regulation 24.4 of the MYT Regulations, 2015, as shown in the Table below:

Table 3-18: Depreciation for DSPM and KWTTP for FY 2016-17 as submitted by CSPGCL (Rs. Crore)

Particulars	DSPM		KWTTP	
	MYT Order	CSPGCL Petition	MYT Order	CSPGCL Petition
Opening GFA	2335.24	2333.70	3665.79	3561.97
Additional Capitalization	3.96	2.07	0.00	12.81
Closing GFA	2339.20	2335.77	3665.79	3574.78
Average GFA	2337.22	2334.73	3665.79	3568.37
Weighted Average Rate of Depreciation	5.50%	5.49%	5.17%	5.17%
Depreciation for FY 2016-17	**128.53**	**128.15**	**189.68**	**184.38**

As regards HTPS, CSPGCL has computed the average depreciation rate on assets added after April 1, 2010 as per MYT Regulations, 2015. The depreciation for assets capitalized after April 1, 2010 has been calculated as shown in the following Table:

Table 3-19: Depreciation for HTPS for FY 2016-17 as submitted by CSPGCL (Rs. Crore)

Particulars	MYT Order	CSPGCL Petition
Depreciation for assets up to FY 2009-10	-	-
Depreciation for assets added after FY 2009-10	-	-
Opening GFA on additional capitalization from FY 2010-11 onwards	346.64	348.30
Additional Capitalization during the year	11.30	32.00
Closing GFA	357.94	380.30
Average GFA	352.29	364.30
Depreciation rate (%)	5.38%	5.33%
Depreciation for FY 2016-17	**18.95**	**19.43**

As regards KTPS, CSPGCL submitted that 90% of the closing GFA has been reduced by accumulated depreciation till previous year. The balance depreciation has been divided by the balance useful life to compute the depreciation for FY 2016-17 as per methodology adopted by Commission in the MYT Order, as shown in the Table below:

Table 3-20: Depreciation for KTPS for FY 2016-17 as submitted by CSPGCL (Rs. Crore)

Particulars	MYT Order	CSPGCL Petition
Opening GFA as per Order	671.63	668.32
Additional Capitalisation	7.00	6.86
Closing GFA	678.63	675.18
90% of GFA	610.77	607.66
Accumulated Depreciation up to FY 2015-16	363.59	363.92
Balanced Depreciable value	247.18	243.74
Balance useful life	5.00	5.00
Depreciation for FY 2016-17	**49.43**	**48.75**

As regards Hasdeo Bango, CSPGCL has computed the depreciation in accordance with the first proviso of Regulation 24.4 and in line with the methodology adopted in the MYT Order, by spreading the balance depreciable value over the balance useful life, as shown in the Table below:

Table 3-21: Depreciation for HSPS for FY 2016-17 as submitted by CSPGCL (Rs. Crore)

Particulars	MYT Order	CSPGCL Petition
Opening GFA	109.90	109.90
Additional Capitalisation	-	-
Closing GFA	109.90	109.90
Accumulated Depreciation up to last year	61.78	61.78
90% of GFA excluding land	98.91	98.91
Balance amount to be depreciated	37.13	37.13
Remaining Useful Life	14.00	14.00
Depreciation for FY 2016-17	**2.65**	**2.65**

Commission's Views

The Commission has detailed the methodology for computation of depreciation for existing Generating Stations in the MYT Order. CSPGCL has clarified that no asset

has been retired during FY 2016-17 as per Provisional Accounts pertaining to plants under consideration.

For KTPS, the Commission was allowing the depreciation for KTPS based on scheduled depreciation rate as specified in CSERC MYT Regulations till FY 2015-16. However, in MYT Order, the Commission has changed the methodology and approved Depreciation over the balance useful life of the Units (till FY 2020-21) by considering the anticipated closure of 50 MW Units. As per retirement schedule considered in MYT Order, Unit 3 was proposed to be retired in June 2016, Unit 1 in March 2017, Unit 2 in December 2017 and Unit 4 in June 2018. However, the Commission notes that no 50 MW Units were retired during FY 2016-17. CSPGCL submitted that 2 nos. of 50 MW Units were due for retirement in FY 2016-17 in compliance of the closure notice received from Chhattisgarh Environmental Conservation Board. However, pending appeal before the Hon'ble Green Tribunal, plant was kept in operation. Moreover, CSPGCL confirmed that the retirement of plant would be in FY 2020-21. Since, it is presumed that all Units of KTPS will be retired by FY 2020-21 as per original schedule, the Commission has not considered any deviation in methodology for allowing depreciation.

In view of the above, the Commission continues with the methodology of depreciation as approved in MYT Order and approves the depreciation over balance useful life of the plant, for the purpose of the provisional Truing up.

For HTPS, the Commission in its Order dated June 12, 2014, adopted a methodology wherein the balance depreciable value of original capital cost of the asset is depreciated over balance useful life of assets, i.e., up to FY 2015-16. Hence, no balance depreciation value for original capital cost has been considered from FY 2016-17 onwards, since it has already been allowed till FY 2015-16. For the additional capitalisation after 2010, the depreciation on average GFA and depreciation rate based on scheduled depreciation rate of 5.33% has been considered.

For DSPM, the Commission has computed depreciation on average GFA by applying the weighted average depreciation rate of 5.49% based on scheduled rates specified in the MYT Regulations, 2015.

In case of KWTPP, the depreciation rate has been considered based on the actual depreciation reported in the Provisional Accounts for FY 2016-17, which has been applied on the revised opening GFA and asset addition during the year approved in this Order.

For Hasdeo Bango, the depreciation has been considered over the balance useful life of the plant, as per methodology adopted in past Orders.

In view of the above, the Commission approves the Depreciation for FY 2016-17 after provisional Truing up, as shown in the following Table:

Table 3-22: Depreciation approved for CSPGCL for FY 2016-17 (Rs. Crore)

Particulars	KTPS	HTPS	DSPM TPS	Hasdeo Bango	KWTPP
Opening GFA	668.32	348.30*	2,333.70	109.90	3,561.97
Additional Capitalization	6.86	32.00	2.07	-	12.81
Closing GFA	675.18	380.30	2,335.77	109.90	3,574.78
Average Rate of Depreciation	-	5.33%	5.49%	-	5.17%
Depreciation	**48.75**	**19.43**	**128.15**	**2.65**	**184.38**

**Note – Opening GFA on additional capitalisation from FY 2010-11 onwards*

3.16 Return on Equity

CSPGCL's submission

CSPGCL has computed Return on Equity (RoE) as per Regulation 22 of the MYT Regulations, 2015. RoE has been computed on pre-tax basis at the base rate of 15.50% for existing Thermal and Hydel Power Plants on permissible equity for FY 2016-17. Since, no actual Income Tax has been paid during FY 2016-17, no grossing up with applicable Tax rate has been considered. CSPGCL submitted that in case any Income Tax liability for FY 2016-17 is raised by the Income Tax authorities during the final assessment, the same may be allowed in the future True-up Order.

CSPGCL submitted the station-wise RoE for FY 2016-17 as shown in the following Table:

Table 3-23: Return on Equity for FY 2016-17 as submitted by CSPGCL (Rs. Crore)

Particulars	KTPS	HTPS	DSPM	Hasdeo Bango	KWTPP
Permissible Equity in Opening GFA	207.08	360.78	694.89	37.72	610.58
Equity addition during the year	2.06	9.60	0.62	0.00	3.84
Permissible Equity in Closing GFA	209.14	370.38	695.51	37.72	614.43
Rate of return on Equity	15.50%	15.50%	15.50%	15.50%	15.50%
Return on Equity	**32.26**	**56.67**	**107.76**	**5.85**	**94.94**

Commission's Views

Regulation 22 of the MYT Regulations, 2015 specifies as under:

> *"22. RETURN ON EQUITY*
>
> *22.1 Generation and Transmission: Return on Equity shall be computed in rupee terms on the equity base determined in accordance with Regulation 17. Return on equity shall be computed on pre-tax basis at the base rate of maximum 15.5 % to be grossed up as per Regulation 22.3 of these Regulations.*
>
> *…*
>
> *22.3 The rate of return on equity for each year of the control period shall be computed by grossing up the base rate with the prevailing MAT rate of the base year: Provided that return on equity with respect to the actual tax rate applicable to the generating company or the transmission licensee or distribution licensee, as the case may be, in line with the provisions of the relevant Finance Acts of the respective year during the Control Period shall be trued up separately for each year of the Control Period. In case, no tax is payable during the financial year, the tax rate for the purpose of truing up shall be taken as nil.*
>
> *…"*

The RoE for FY 2016-17 has been approved in the MYT Order dated April 30, 2016.

For existing stations, the closing equity approved in True-up for FY 2015-16 has been considered as the opening equity for FY 2016-17. RoE has been computed as per Regulation 22 of the MYT Regulations, 2015.

The grossing up of base rate of RoE with the applicable tax rate has not been considered. The base rate of RoE of 15.50% has been considered as specified in the MYT Regulations, 2015. As regards the prayer of CSPGCL to allow the Income Tax liability for FY 2016-17 on actual basis after final assessment by the Tax authorities, an appropriate view regarding the same shall be taken based on submissions of CSPGCL in this regard at the time of final Truing up. RoE approved for FY 2016-17 after provisional Truing up is shown in the following Table:

Table 3-24: Return on Equity for FY 2016-17 as approved by the Commission (Rs. Crore)

Particulars	KTPS	HTPS	DSPM	Hasdeo Bango	KWTPP
Opening Equity	207.08	360.78	694.89	37.72	610.58
Equity addition during the year	2.06	9.60	0.62	0.00	3.84
Closing Equity	209.14	370.38	695.51	37.72	614.43
Rate of return on Equity	15.50%	15.50%	15.50%	15.50%	15.50%
Return on Equity	**32.26**	**56.67**	**107.76**	**5.85**	**94.94**

3.17 Interest and Finance Charges

CSPGCL's submission

CSPGCL submitted that the Interest and Finance charges for FY 2016-17 have been computed as per Regulation 23 of the MYT Regulations, 2015. The repayment for the year has been deemed to be equal to the depreciation for the year and normative interest on loan has been calculated on the normative average loan during the year by applying the weighted average rate of interest of actual loan portfolio at the beginning of the year.

CSPGCL added that depreciation is deemed as repayment as per philosophy adopted in the MYT Regulations and the MYT Order, while the repayment of State Government Loan has been notionally considered as matured and no interest charges against the same is included.

CSPGCL submitted that the loan for KWTPP was obtained from M/s PFC and M/s REC on April 1, 2015 at rate of interest of 13% and 12.25%, respectively. Further, CSPGCL has opted for loan refinancing. The offer from M/s State Bank of India was received for refinancing of loan of KWTPP and DSPM at concessional rate. However, it involved upfront closure /commitment cost. As against this, PFC made a counter offer to refinance the same at the rates 10.30% and 10.25% for KWTPP and DSPM, respectively, without any front-end cost. As per Regulation 23.8, benefit of such restructuring is to be shared between beneficiaries and CSPGCL in the ratio 2:1. Accordingly, CSPGCL has calculated the effective rate of interest for DSPM and KWTPP after refinancing as 10.92% and 11.20%, respectively.

The Interest and Finance charges submitted by CSPGCL for FY 2016-17 is shown in the following Table:

Table 3-25: Interest & Finance Charges as submitted by CGPGCL for FY 2016-17 (Rs. Crore)

Particulars	KTPS	HTPS	DSPM	Hasdeo Bango	KWTPP
Opening Net Normative Loan	97.31	100.72	754.10	10.38	2,514.54
Repayment during the period	48.75	19.43	128.15	2.65	184.38
Debt Addition during the year	4.80	22.40	1.45	-	8.97
Closing Net Normative Loan	53.37	103.69	627.40	7.73	2,339.13
Weighted Average Interest Rate (%)	12.52%	12.18%	10.92%	11.12%	11.20%
Interest Expense for the Period	9.43	12.45	75.41	1.01	271.81
Financing and Other Charges	0.05	0.00	0.00	-	0.00
Total Interest Expenses	**9.49**	**12.46**	**75.41**	**1.01**	**271.81**

Commission's Views

The Commission has computed the Interest and Finance charges for FY 2016-17 as per Regulation 23 of the MYT Regulations, 2015.

For existing stations, the closing net normative loan balance approved for FY 2015-16 after True-up has been considered as opening net normative loan balance for FY 2016-17. The debt addition has been considered equal to debt amount approved in this Order towards additional capitalisation. The deprecation has been considered as repayment during the year.

The actual weighted average interest rate as on April 1, 2016 has been re-computed as per Provisional Accounts for FY 2016-17 and documentary evidences submitted by CSPGCL. Accordingly, weighted average rate of interest has been considered for FY 2016-17.

As regards the re-financing of existing loans for KWTPP and DSPM, the Commission sought the details of offer submitted by State Bank of India and counter offer submitted by M/s. PFC and M/s. REC. CSPGCL submitted that in case the offer of SBI would have been accepted, then prepayment charges were 2.50% and 2.75% as per terms and conditions of existing lender, PFC and REC, respectively. At discounted rate over the balance loan term, the effective loading was about to 0.55%. Further, SBI offer was at monthly rest, while existing lender's offers were at quarterly

rest, which practically implies 0.1% additional discounting on PFC and REC rates. Hence, re-financing from PFC and REC was found to be beneficial and accordingly, the same was adopted. The Commission has gone through the offer of PFC and REC adopted by CSPGCL for re-financing of loan for KWTPP and DSPM. The Commission observes that the offer accepted by CSPGCL is more beneficial. The Commission accepted the revision of rate of interest for DSPM loan from 12.25% to 10.25% and for KWTPP loan from 12.99% to 10.30%. This led to reduction in interest rate of 2.00% for DSPM and 2.69% for KWTPP.

Further, as per Regulation 23.8 of the MYT Regulations, 2015, the savings of re-financing shall be shared between the beneficiaries, i.e., CSPDCL, and CSPGCL in the ratio of 2:1. The Commission accepts the methodology of sharing of savings proposed by CSPGCL. Accordingly, net savings have been computed separately and allowed in addition to Interest and finance charges. Further, the Commission notes that CSPGCL confirmed that no additional cost has been incurred by CSPGCL for re-financing of loan, hence, the same has not been considered.

In view of the above, the Interest and Finance charges approved by the Commission for FY 2016-17 after provisional truing up is shown in the following Table:

Table 3-26: Interest & Finance Charges as approved by the Commission for FY 2016-17 (Rs. Crore)

Particulars	KTPS	HTPS	DSPM	Hasdeo Bango	KWTPP
Opening Net Normative Loan	97.31	100.72	754.10	10.38	2,514.54
Repayment during the period	48.75	19.43	128.15	2.65	184.38
Debt Addition during the year	4.80	22.40	1.45	-	8.97
Closing Net Normative Loan	53.37	103.69	627.40	7.73	2,339.13
Weighted Average Interest Rate (%)	12.52%	12.18%	10.25%	10.10%	10.30%
Interest Expense for the Period	9.43	12.45	70.80	0.91	249.96
Add: Financing and Other Charges	0.05	0.00	0.00	-	0.00
Add: Sharing of net savings for re-financing	-	-	4.61	-	21.76
Total Interest Expenses	**9.49**	**12.46**	**75.41**	**0.91**	**271.73**

3.18 Operation and Maintenance (O&M) expenses

CSPGCL's Submission

CSPGCL submitted the O&M Expenses (excluding water charges) for existing thermal and hydel power plants in accordance with Regulation 38.5 of MYT Regulations, 2015.

Further, CSPGCL submitted that as per the methodology adopted in earlier Orders, O&M Expense in the support functions such as Head Office, CAU, etc., are allocated among the thermal power plants and Hasdeo Bango HEP, based on their installed capacities.

CSPGCL added that it has computed the normative O&M cost in the similar manner as approved in the MYT Order and previous True up Order. For the purpose of normalization of O&M expenses for FY 2016-17, CSPGCL has considered WPI variation and CPI variation as 3.67% and 4.12%, respectively. CSPGCL further submitted that the normative O&M Expenses for KWTPP, whose COD was later than April 1, 2010, have been computed as per the Regulation 38.5.1.1 of MYT Regulations, 2015, normalizing the same with actual weighted average rate of inflation.

CSPGCL submitted that it has not considered the productivity incentive as the part of employee expense for the regulatory purpose, as per the methodology settled in the previous Order. Further, leave encashment expenses have been settled against the provision made in the previous year. CSPGCL has only considered the actual payment of Interim relief as per methodology followed by previous Orders.

CSPGCL further submitted that as per Regulations, the MYT Order has not considered the Contribution to the Pension Trust as part of O&M expenses, CSPGCL has followed the same approach. Further, as per the methodology adopted in earlier Orders, the cost incurred on coal transport has been reduced from the O&M Expense and added to the fuel cost. Similarly, CSPGCL has not considered donations as part of A&G Expenses.

The O&M Expenses submitted by CSPGCL for FY 2016-17 is shown in the following Table:

Table 3-27: O&M Expenses for FY 2016-17 as submitted by CSPGCL (Rs. Crore)

Station	MYT Order	CSPGCL Petition	
		Actual	Normative
KTPS	234.23	198.78	227.06
HTPS	302.97	255.21	275.95
DSPM	155.81	107.01	140.77
HBPS	12.93	9.71	11.22
KWTPP	97.03	50.05	88.31
Total	**802.97**	**620.76**	**743.31**

Commission's Views

As regards O&M Expenses, Regulation 38.5 of the MYT Regulations, 2015 specifies as under:

*"**38.5 Operation and Maintenance expenses***

… … …

Employee Cost

c) The employee cost, excluding pension fund contribution, impact of pay revision arrears and any other expense of non-recurring nature, for the base year i.e. FY 2015-16, shall be derived on the basis of the normalized average of the actual employee expenses excluding pension fund contribution, impact of pay revision arrears and any other expense of non-recurring nature, available in the accounts for the previous five (5) years immediately preceding the base year FY 2015-16, subject to prudence check by the Commission.

d) The normalization shall be done by applying last five year average increase in Consumer Price Index (CPI) on year to year basis. The average of normalized net present value for FY 2010-11 to FY 15, shall then be used to project base year value for FY 16. The base year value so arrived, shall be escalated by the above inflation rate to estimate the employee expense (excluding impact of pension fund contribution and pay revision, if any) for each year of the Control Period.

At the time of true up, the employee costs shall be considered after taking into account the actual increase in CPI during the year instead of projected inflation for that period.

Provided further that impact of pay revision (including arrears) and pension fund contribution shall be allowed on actual during the true-up as per accounts, subject to prudence check and any other factor considered appropriate by the Commission.

A&G Expenses and R&M Expenses

e) The administrative and general expenses (excluding water charges) and repair and maintenance expenses, for the base year i.e. FY 2015-16, shall be derived on the basis of the normalized average of the actual administrative and general expenses (excluding water charges) and repair and maintenance expenses, respectively available in the accounts for the previous five (5) years immediately preceding the base year FY 2015-16, subject to prudence check by the Commission. Any expense of non-recurring nature shall be excluded while determining normalized average for the previous five (5) years.

f) The normalization shall be done by applying last five year average increase in Wholesale Price Index (WPI) on year to year basis. The average of normalized net present value for FY 2010-11 to FY 15, shall then be used to project base year value for FY 2015-16. The base year value so arrived, shall be escalated by the above inflation rate to estimate the administrative and general expense and repair and maintenance expenses for each year of the Control Period.

At the time of true up, the administrative and general expenses and repair and maintenance expenses shall be considered after taking into account the actual inflation instead of projected inflation for that period.

Provided that water charges shall be pass-through in tariff on reimbursement basis." (emphasis added)

In the MYT Order, the Commission determined the O&M Expenses for the Control Period from FY 2016-17 to FY 2020-21 in accordance with the above Regulations.

The above Regulations specify that at the time of truing up, the O&M Expenses shall be considered after taking into account the actual inflation instead of projected inflation for that period. The Regulation does not require the base O&M expenses as approved in the MYT Order to be revised.

Accordingly, the Commission has computed the normative O&M expenses for FY 2016-17 by applying the actual inflation of FY 2016-17 on base O&M expenses for FY 2015-16, as approved in the MYT Order. The Commission has considered the actual inflation of CPI and WPI levels for FY 2016-17 over CPI and WPI levels of FY 2015-16. The Commission has considered escalation factor of 4.12% for employee expenses and 1.43% for R&M expenses and A&G Expenses. Further, as regards KWTPP, the normative O&M expenses has been determined in accordance with the norms specified in the MYT Regulations, 2015.

Accordingly, the normative O&M Expenses computed for FY 2016-17 are as shown in the following Table:

Table 3-28: Normative O&M Expenses for FY 2016-17 as computed by the Commission (Rs. Crore)

Particulars	FY 2015-16	FY 2016-17	
	Base Year Normative Expenses	Approved in MYT Order	Revised Normative Expenses
KTPS	229.77	233.39	222.70
HTPS	280.03	302.97	289.05
DSPM	144.61	155.81	148.60
KWTPP	-	97.03	88.31
HB	11.93	12.93	12.34

For the purpose of provisional truing up for FY 2016-17, the Commission approves the normative O&M Expenses. At this stage, the Commission has continued with its approach as per MYT Order for reduction in O&M expenses for KTPS in view of retirement schedule. The Commission may review the normative O&M expenses at the time of final Truing up. As regards CSPGCL prayer for non reduction in O&M expenses due to non retirement of unites each concerned, the final view shall be taken up at the time of final true up.

The Commission has undertaken sharing of gains and losses as per MYT Regulations, 2015, between normative expenses vis-à-vis provisional expenses as per Provisional Accounts.

As regards the sharing of gains and losses, the following provision has been inserted in Regulation 13.1 by the First Amendment to the MYT Regulations, 2015 on June 16, 2017:

> *"Provided further that employee cost shall not be factored in for sharing of gains or losses on account of operations and maintenance expenses, … …"*

Accordingly, the Commission approves the Employee Expenses at actuals as per provisional Accounts for FY 2016-17, and no sharing of gains and losses have been considered for Employee Expenses. The sharing of gains and losses has been undertaken in subsequent Section of this Chapter.

In this Order, the Commission has considered the actual O&M expenses based on provisional Accounts for FY 2016-17, for the purposes of sharing of gains and losses. The final approval of O&M Expenses shall be accorded at time of truing up based on audited accounts.

Further, the Commission notes that CSPGCL submitted the impact of wage revision separately over and above the O&M expenses claimed. The Commission notes that the impact of wage revision is allowed on actual payout basis. The Commission sought the details of impact of wage revision for FY 2016-17. CSPGCL submitted the following details:

Table 3-29: Details of Impact of Wage Revision as submitted by CSPGCL (Rs. Crore)

Particulars	KTPS	HTPS (incl. HB)	DSPM	KWTPP
Actual Payment made against provision for FY 2015-16 (not considered in previous year True-up)	3.63	4.98	1.47	0.92
Payment made for FY 2016-17 (on Basic + Addl. Pay)	3.51	4.68	1.44	0.86
Payment made for FY 2016-17 (on DA + HRA @7.5%)	4.59	6.12	1.85	1.11
Total Actual IR paid during FY 2016-17	11.74	15.78	4.75	2.89
Allocation CAU	0.66	1.26	0.75	0.75
Total Impact of Wage Revision	**12.39**	**17.04**	**5.50**	**3.63**

The Commission, for the purpose of provisional truing up, has considered the impact of wage revision for FY 2016-17 as submitted by CSPGCL, over and above the approved O&M Expenses. The final view in this regard will be taken at the time of Final Truing up for FY 2016-17.

3.19 Interest on Working Capital

CSPGCL's Submission

CSPGCL submitted that the Interest on Working Capital (IoWC) for FY 2016-17 has been computed in accordance with Regulation 25 of the MYT Regulations, 2015, considering the interest rate equal to the applicable Base Rate of State Bank of India as on April 1, 2016 plus 350 basis points, i.e., 12.80%

Accordingly, CSPGCL has claimed IoWC of Rs. 22.62 Crore for KTPS, Rs. 32.37 Crore for HTPS, Rs. 24.79 Crore for DSPM, Rs. 20.41 Crore for KWTPP, and Rs. 0.84 Crore for Hasdeo Bango.

Commission's Views

The Commission has computed the IoWC for FY 2016-17 as per Regulation 25 of the MYT Regulations, 2015. The rate of interest has been considered as 12.80% as per the provisions of MYT Regulations, 2015. The revised normative O&M expenses have been considered for computation of Working Capital requirement. The actual revenue billed including past Revenue Gap/(Surplus) has been considered as receivables for computation of working capital requirement. Further, with the approach adopted in the past Orders, DSPM has been considered as a pithead station, and one-month cost of coal has been considered. Accordingly, the IoWC approved by the Commission after provisional Truing up for FY 2016-17 is shown in the following Table:

Table 3-30: Approved IoWC for CSPGCL for FY 2016-17 (Rs. Crore)

Station	MYT Order	CSPGCL Petition	Approved after Provisional True-up
KTPS	18.18	22.62	22.47
HTPS	27.91	32.37	32.84
DSPM	22.36	24.79	25.13
HBPS	0.56	0.84	0.86
KWTPP	17.58	20.41	20.41
Total	**86.59**	**101.03**	**102.14**

3.20 Pension and Gratuity Contribution

CSPGCL's Submission

CSPGCL submitted that as per MYT Order, CSPGCL's share of Pension and Gratuity Contribution for FY 2016-17 was determined as Rs. 130.83 Crore. CSPGCL further submitted that the plant-wise allocations considered in the Order have been maintained.

Also, CSPGCL submitted that the Commission in the MYT Order dated April 30, 2016, directed to make additional contribution to the Pension & Gratuity Fund in compliance of the Hon'ble APTEL's decision. Accordingly, CSPGCL has made the additional Contribution of Rs. 42.25 Crore towards the same.

Commission's Views

The actual pension fund contribution of Rs. 113.29 Crore, excluding contribution for Marwa TPP, has been approved for CSPGCL for FY 2016-17, for the purpose of the

provisional Truing up. The amount has been allocated to the Generating Stations in the same proportion as allocated by CSPGCL.

3.21 Non-Tariff Income

CSPGCL's submission

CSPGCL submitted the Non-Tariff Income as per Regulation 38.6 of MYT Regulations, 2015 for FY 2016-17 for its existing Stations. Delayed Payment Surcharge has not been taken into account while determining the Non-Tariff Income for FY 2016-17 as per well-settled principle in previous Orders. The Station specific income has been booked to the respective Station, and income appearing against HO & CAU has been allocated to Generating Stations on the basis of installed capacity.

In previous True-up Petition, CSPGCL submitted that lease rent received against Rail Corridor from SRCPL and income from Fixed Deposit receipts is not incidental to the business of CSPGCL. This income should not be considered as the part of Non-Tariff Income of CSPGCL. Further, CSPGCL submitted that in the Tariff Order dated March 31, 2017, the Commission held as under:

> *"...As regards the income received from SRCPL, the Commission notes that at this stage the income received from SRCPL is not incidental since, the facility is not owned nor being used by any existing plants for which the ARR was approved for FY 2015-16. Hence, for the purpose of True-up for FY 2015-16, the Commission has not considered this income received from SRCPL..."*

Further, CSPGCL submitted that the facility is not being used by any of the existing plants covered in the true up and no commercial utilisation has been made by CSPGCL. Further, no new directives from Government of Chhattisgarh were received regarding the same. Further, CSPGCL has not claimed any expenses on this account in the current Petition and maintained the status quo.

Furthermore, the receipts from SRCPL were not used by CSPGCL for its existing business and have been kept as separate Fixed Deposit Receipts so that, in case of any Government Directives, the same may be complied without any difficulty. Thus, income from lease deed is not incidental to the business of the CSPGCL. Hence, CSPGCL requested the Commission that in view of no change in factual matrix and the status quo, the view taken by the Commission in the previous Order should be maintained.

Commission's View

The Commission in MYT Order has approved the Non-Tariff income of Rs. 35.19 Crore for CSPGCL for FY 2016-17.

The Commission notes that Provisional Accounts for FY 2016-17 reflects the Non-Tariff Income of Rs. 31.53 Crore. This includes the amount of Rs. 2.60 Crore towards lease rent from SRCPL pertaining to common rail corridor. Further, CSPGCL submitted the details of Rs. 1.51 Crore towards the income of FDRs for SRCPL. The Commission notes the submission of CSPGCL regarding the modalities of lease rent agreement for Rail Corridor from SRCPL and maintains the status-quo as per True-up Order for FY 2015-16. Accordingly, the Commission has not considered the income of Rs. 4.11 Crore for provisional truing up for FY 2016-17.

Non-Tariff Income of Rs. 5.17 Crore allocated to Marwa TPP has not been considered for provisional truing up. Further, the Commission notes that provisional accounts include the amount of Rs. 13.74 Crore towards interest income on advances to contractor for KWTPP. However, CSPGCL has considered the same amount for reducing the capital asset instead of considering under Non-Tariff income. The Commission has also considered the same approach as discussed in earlier Section.

In view of the above, the Commission approves the Station-wise Non-Tariff income for the purpose of provisional Truing up for FY 2016-17, as shown in the following Table:

Table 3-31: Approved Non-Tariff Income in True-up for FY 2016-17 (Rs. Crore)

Station	MYT Order	CSPGCL Petition	Approved after Provisional Truing up
KTPS	7.61	1.17	1.17
HTPS and HBPS	14.90	3.20	3.20
DSPM	8.63	2.13	2.13
KWTPP	4.05	2.03	2.03

3.22 Prior Period Items

CSPGCL's Submission

CSPGCL has considered the prior period (income)/expenses on the basis of the principles and practices adopted by the Commission in the previous Order. CSPGCL has not considered other excess provision (for ED and Cess and coal cost

rectification), and provision / reversal of provision for interim relief and other charges for the Prior Period (income)/expenditure. Similarly, CSPGCL has not considered depreciation and interest on finance charges relating to previous years, as the same has been computed differently and was approved accordingly during the respective True-up. Further, CSPGCL submitted that no contingent liability / claim has been included in the current Petition and such liability / claims shall be submitted on their settlement, as the case may be. Except for the above exclusions, CSPGCL has considered remaining prior period (income)/expenditure. The prior period expenses against HO & CAU in Provisional Accounts of FY 2016-17 have been allocated to the existing thermal plants based on their installed capacity.

Commission's Views

The Commission has approved the Prior Period Expenses/(Income) in line with the approach adopted in the previous Tariff Orders. The Commission has considered the treatment of prior period item in accordance with the treatment considered in respective year's True-up Orders. The Commission approves the Station-wise Prior Period (Income)/Expenses for the purpose of provisional Truing up for FY 2016-17 as shown in the following Table:

Table 3-32: Approved Prior Period Expenses/(Income) in True-up for FY 2016-17 (Rs. Crore)

Station	CSPGCL Petition	Approved after Provisional Truing up
KTPS	0.08	0.08
HTPS	-	-
DSPM	-	-
KWTPP	-	-

3.23 Statutory Charges

CSPGCL's Submission

CSPGCL submitted that as per MYT Regulations, 2015, the Water Charges for FY 2016-17 are on reimbursement basis, and the same has been recovered accordingly. Further, CSPGCL has claimed the SLDC charges as pass through element separately. CSPGCL submitted that Rs. 112.98 Crore as Water Charges and SLDC Charges have been recovered and no deficit/(surplus) has been claimed for FY 2016-17.

Further, CSPGCL has reduced expenses of Rs. 0.28 Crore incurred towards Petition filing and publication expenses in FY 2016-17 from O&M expenses and has claimed them separately. CSPGCL submitted that during FY 2016-17, Rs. 310.46 Crore towards impact of Hon'ble APTEL Judgement and Rs. 203.84 Crore towards Revenue Gap for FY 2015-16 were allowed by Commission and the same has been recovered as per Commission's Order.

Commission's Views

For the purpose of the provisional truing up, the Commission has considered Statutory Charges as submitted by CSPGCL and based on Provisional Accounts for FY 2016-17. The Commission has separately considered the amount of Rs. 0.28 Crore towards Petition filing and publication expenses. Further, the impact of Hon'ble APTEL Judgment of Rs. 514.30 Crore (Rs. 310.46 crore + Rs. 203.84 Crore) has also been separately considered as expenses.

The final view in this regard shall be taken at time of Final truing up for FY 2016-17.

3.24 Aggregate Revenue Requirement for CSPGCL for FY 2016-17

The Summary of ARR for KTPS, HTPS, DSPM, HBPS and KWTPP for FY 2016-17 is shown in the following Table:

Table 3-33: Approved ARR for HTPS, KTPS and DSPM, for FY 2016-17 (Rs. Crore)

Particulars	KTPS			HTPS			DSPM			KWTPP			Hasdeo Bango		
	MYT Order	CSPGCL Petition	Approved for Provisional Truing up	MYT Order	CSPGCL Petition	Approved for Provisional Truing up	MYT Order	CSPGCL Petition	Approved for Provisional Truing up	MYT Order	CSPGCL Petition	Approved for Provisional Truing up	MYT Order	CSPGCL Petition	Approved for Provisional Truing up
Depreciation	49.43	48.75	48.75	18.95	19.43	19.43	128.50	128.15	128.15	189.68	184.38	184.38	2.65	2.65	2.65
Interest & Finance Charges	9.88	9.49	9.49	11.80	12.46	12.46	84.77	75.41	75.41	331.34	271.81	271.73	1.15	1.01	0.91
Return on Equity	29.65	32.26	32.26	56.11	56.67	56.67	107.87	107.76	107.76	90.96	94.94	94.94	5.85	5.85	5.85
O&M Expenses	234.23	198.78	198.78	302.97	255.21	255.21	155.81	107.01	107.01	97.03	50.05	50.05	12.93	9.71	9.71
Impact of Wage Revision	9.61	12.39	12.39	24.81	17.04	16.85	4.19	5.50	5.50	2.68	3.63	3.63	0.99	0.19	0.19
Additional R&M Expenses	0.42	0.05	0.05	1.47	0.20	0.20	-	-	-	-	-	-	-	-	-
Interest on Working Capital	18.18	22.62	22.47	27.90	32.37	32.84	23.36	24.79	25.13	17.58	20.41	20.41	0.56	0.84	0.86
Less: Non-Tariff Income	7.61	1.17	1.17	14.90	3.20	3.20	8.63	2.13	2.13	4.05	2.03	2.03	-	-	-
Total Annual Capacity Charge	**343.80**	**323.16**	**323.01**	**429.12**	**390.17**	**390.45**	**495.91**	**446.49**	**446.84**	**725.22**	**623.20**	**623.12**	**24.13**	**20.25**	**20.17**
Cost of Coal	340.50	493.18	493.18	622.59	802.13	802.13	432.04	550.82	550.82	340.44	413.41	413.41	-	-	-
Cost of Oil	15.01	12.27	12.27	19.02	15.75	15.75	6.01	3.90	3.90	7.24	7.37	7.37	-	-	-
Total Energy Charges	**355.51**	**505.45**	**505.45**	**641.61**	**817.87**	**817.87**	**438.05**	**554.72**	**554.72**	**347.68**	**420.78**	**420.78**	-	-	-
Pension and Gratuity Contribution	46.39	46.39	46.39	48.03	48.03	48.03	7.89	7.89	7.89	7.77	7.77	7.77	3.21	3.21	3.21
Net prior period (income)/expenses	0.00	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-
Aggregate Revenue Requirement	**745.70**	**875.08**	**874.93**	**1118.76**	**1256.08**	**1256.35**	**941.85**	**1009.10**	**10009.44**	**1080.67**	**1051.75**	**1051.67**	**27.34**	**23.46**	**23.38**

3.25 Revenue from Sale of Power

CSPGCL's Submission

CSPGCL submitted the revenue from sale of power for FY 2016-17 as Rs. 4473.41 Crore excluding the revenue of Rs. 112.98 Crore on account of recovery of Water Charges and SLDC Charges and Rs. 514.30 Crore as recovery of impact of Hon'ble APTEL's Judgment and Revenue Gap.

Commission's View

The Commission has considered the revenue from sale of power for FY 2016-17 based on the Provisional Accounts submitted by CSPGCL. The Water Charges and SLDC Charges have been considered as Rs. 112.82 Crore. The impact of Hon'ble APTEL Judgment has been considered separately as Rs. 514.30 Crore. After excluding these two items, the revenue from sale of power for FY 2016-17 has been considered as Rs. 4,485.77 Crore. The Commission has considered the revenue from DSM Charges of Rs. 12.37 Crore , which was not considered by CSPGCL, as the sharing of DSM Charges has been considered under Sharing of gains and losses.

3.26 Sharing of Gains and Losses for FY 2016-17

Regulation 11 of the MYT Regulations, 2015 specifies as under:

> *"11. CONTROLLABLE AND UN-CONTROLLABLE FACTORS*
>
> *11.1 For the purpose of these Regulations, the term "uncontrollable factors" shall comprise of the following factors, but not limited to, which were beyond the control of the applicant, and could not be mitigated by the applicant:*
>
> *(a) Force Majeure events;*
>
> *(b) Change in law*
>
> *... ...*
>
> *11.2 For the purpose of these Regulations, the term "Controllable factors" shall comprise of the following:*
>
> *...*
>
> *(b) Generation Performance parameters like SHR, Auxiliary consumption, etc;*
>
> *...*

(f) Variation in Wires Availability and Supply Availibility"

Further, Regulation 12 of the MYT Regulations, 2015 specifies as under:

> *"12. MECHANISM FOR PASS THROUGH OF GAINS OR LOSSES ON ACCOUNT OF UNCONTROLLABLE FACTORS*
>
> *The aggregate net gains / losses to the generating company or STU/transmission licensee or distribution licensee on account of uncontrollable items (as per the tariff order) over such period shall be passed on to beneficiaries/consumers through the next ARR or as may be specified in the Order of the Commission passed under these Regulations."*

Regulation 13 of the MYT Regulations, 2015 specifies as under:

> *"13. MECHANISM FOR SHARING OF GAINS OR LOSSES ON ACCOUNT OF CONTROLLABLE FACTORS*
>
> *The mechanism for sharing of aggregate net gain on account of over achievement in reference to the target set in tariff order for efficiency linked controllable items other than energy losses computed in accordance to Regulation 7l shall be passed on to the beneficiary / consumer(s) and retained by the generating company or the licensee or SLDC, as the case may be, in the ratio of 50:50 or as may be specified in the Order of the Commission passed under these Regulations.*
>
> *Provided that the mechanism for sharing of aggregate net gain on account of over achievement in reference to the target set in tariff order for energy losses computed in accordance to Regulation 71*
>
> *shall be passed on to the consumer(s) and retained by the licensee, as the case may be, in the ratio of 2: 1 or as may be specified in the Order of the Commission passed under these Regulations.*
>
> *13.2. The mechanism for sharing of aggregate net loss on account of under achievement in reference to the target set in tariff order for efficiency linked controllable items shall be passed on to the beneficiary / consumer(s) and retained by the generating company or the licensee, as the case may be, in the ratio of 50:50 or as may be specified in the Order ofthe Commission passed under these Regulations."*

CSPGCL's Submission

CSPGCL submitted that Regulation 13 specifies the method for sharing of gains and losses. Further, in compliance with Regulations 32 and 35 of MYT Regulations, 2015, CSPGCL has segregated the Pension Fund Contribution from AFC and considered it as a separate line item. Further, CSPGCL submitted that it has excluded Employee Cost from O&M Cost for the purpose of sharing of Gains / Losses as per Amendment to the MYT Regulations, 2015 dated June 16, 2017. Except for the same, CSPGCL submitted that it has followed the methodology followed in previous Orders for Sharing of Gains / Losses. CSPGCL has also submitted that in line with previous Order, DSM charges has been shared in the 50:50 ratio.

Commission's View

The sharing of gains and losses on account of controllable factors has been computed in accordance with the methodology submitted by CSPGCL. The contribution to Pension & Gratuity Fund and Employee Cost have been excluded from the calculations, and gains/losses have been shared in the ratio of 50:50 in accordance with the MYT Regulations, 2015. Further, sharing of gains and losses of DSM Charges has also been considered.

The sharing of gains and losses after Provisional True-up for FY 2016-17 for KTPS, HTPS, DSPM and KWTPP is as shown in the Table below:

Table 3-34: Sharing of Gains and Losses for Provisional True-up for FY 2016-17 for KTPS, HTPS and DSPM

Particulars	Units	FY 2016-17			
		KTPS	HTPS	DSPM	KWTPP
Fixed Charges @ NPAF					
Installed capacity	MW	440	840	500	500
NPAF	%	60.52%	81.00%	85.00%	81.00%
Actual PAF achieved (billed)	%	58.27%	80.63%	93.10%	76.50%
Normative aux. consumption	%	11.25%	9.70%	9.00%	5.25%
Actual aux cons	%	12.65%	9.76%	7.78%	5.00%
Normative aux. consumption	MU	283.82	592.42	335.07	195.46
Actual aux cons	MU	289.71	578.86	309.73	166.13
Normative Net Generation	MU	2239.06	5515.05	3387.93	3527.54
Actual net generation	MU	2000.85	5353.65	3672.68	3155.96
Total generation available for Fuel Cost recovery	**MU**	**2000.85**	**5353.65**	**3672.68**	**3155.96**

Particulars	Units	FY 2016-17			
		KTPS	HTPS	DSPM	KWTPP
Fixed Cost (norm-wise)					
Depreciation	Rs Cr	48.75	19.43	128.15	184.38
Interest on Loan and Finance charges	Rs Cr	9.49	12.46	75.41	271.73
Return on Equity	Rs Cr	32.26	56.67	107.76	94.94
Interest on Working Capital	Rs Cr	22.47	32.84	25.13	20.41
O & M Expenses	Rs Cr	222.70	289.05	148.60	88.31
Less - Non Tariff Income	Rs Cr	1.17	3.20	2.13	2.03
Fixed Cost allowed on Normative Basis	**Rs Cr**	**334.48**	**407.24**	**482.92**	**657.74**
Fixed cost expenditure excluding O&M	Rs Cr	111.78	118.19	334.32	569.43
Normative Fixed Cost (Cr. Rs/% of PAF) excluding O&M	Rs Cr./%PAF	1.85	1.46	3.93	7.03
Prorata Fixed cost allowable from Actual PAF	Rs Cr	107.63	117.66	366.19	537.79
Fixed cost gain from normative cost	**Rs Cr**	**(4.16)**	**(0.53)**	**31.86**	**(31.63)**
Total Gain/(Loss)	**Rs Cr**	**(4.50)**			
R&M and A&G expenses					
Normative R&M and A&G Cost allowed	Rs Crore	70.79	107.15	83.85	50.33
Normative R&M and A&G Cost (Cr. Rs/% of PAF)	Rs Cr./%PAF	1.17	1.32	0.99	0.62
Pro-rata R&M and A&G cost allowable from actual PAF	Rs Crore	68.16	106.66	91.84	47.54
Actual R&M and A&G expenditure	Rs Crore	65.66	81.19	46.88	18.63
Difference of recovery and expenditure	**Rs Cr**	**2.50**	**25.48**	**44.96**	**28.90**
Total Gain/(Loss)	**Rs Cr**	**101.84**			
Secondary Fuel Cost					
Normative SFC	Rs Cr	16.96	21.14	9.45	8.05
Normative SF Cost derived from NPLF	Rs/kwh	0.08	0.04	0.03	0.02
Secondary fuel cost recovery from actual generation	Rs Cr	15.16	20.52	10.24	7.21
Actual SFC incurred	Rs Cr	12.27	15.75	3.90	7.37
Savings due to performance improvement	**Rs Cr**	**2.89**	**4.78**	**6.34**	**(0.16)**
Total Impact of Savings/Excess Expenditure due to SFC	**Rs Cr**	**13.85**			

Particulars	Units	FY 2016-17			
		KTPS	HTPS	DSPM	KWTPP
Coal Cost (primary fuel)					
Normative Coal Cost	Rs Cr	530.09	818.50	528.32	441.10
Normative ECR (Coal)	Rs/kwh	2.37	1.48	1.56	1.25
Normative fuel cost on actual sent out	Rs Cr	473.70	794.55	572.73	394.64
Actual fuel cost	Rs Cr	493.18	802.13	550.82	413.41
Coal Cost Surplus/(deficit)	**Rs Cr**	**(19.48)**	**(7.58)**	**21.91**	**(18.78)**
Total Impact of Savings/Excess Expenditure due to Coal	**Rs Cr**	**(23.93)**			
Total plant wise impact of gain/ loss	**Rs Cr**	**(18.25)**	**22.14**	**105.08**	**(21.67)**
Total Impact of Savings/Excess Expenditure	Rs Cr	**87.30**			
Gains/(Losses) for Hasdeo Bango of FY 2016-17	**Rs Cr**	**0.49**			
Plant-wise impact of DSM Charges	**Rs Cr**	2.41	6.19	2.26	1.51
Total Impact of DSM Charges	**Rs Cr**	**12.37**			
Net total Impact Savings/Excess Expenditure	**Rs Cr**	**100.16**			
Net applicable Gain/(Loss) to CSPGCL on 50:50 basis	**Rs Cr**	**50.08**			

From the above table, it is seen that CSPGCL has earned a gain of Rs. 50.08 Crore. As per the provisions of the Regulations, 50% of this gain has to be retained by CSPGCL and remaining 50% will be passed on to the consumers of the State.

Further, the Commission clarifies that sharing of gains and losses has been considered after provisional truing up for FY 2016-17, based on the methodology submitted by CSPGCL. However, the final sharing of gains and losses shall be approved after final truing up for FY 2016-17. The Commission, at time of final truing up for FY 2016-17, may review the methodology for undertaking the sharing of gains and losses as per the provisions of MYT Regulations, 2015.

3.27 Revenue Gap/(Surplus) for CSPGCL for FY 2016-17

Commission's view

In view of the above, the Revenue Gap/(Surplus) for CSPGCL for FY 2016-17 after provisional truing up has been approved as shown in the following Table:

Table 3-35: Revenue Gap/(Surplus) after Provisional True-up for FY 2016-17 for CSPGCL (Rs. Crore)

Particulars	CSPGCL Petition	Approved after Provisional True-up
ARR for KTPS	875.08	874.93
ARR for HTPS	1,256.08	1,256.35
ARR for DSPM TPS	1,009.10	1,009.44
ARR for KWTPP	1,051.75	1,051.67
ARR for Hasdeo Bango	23.46	23.38
Total ARR for Generating Stations of CSPGCL	**4,215.47**	**4,215.77**
Sharing of Gain/(Losses) for FY 2016-17	55.40	50.08
Water and SLDC Charges	112.98	112.82
Petition Filing Fee	0.28	0.28
Impact of APTEL Judgement and Revenue Gap	514.30	514.30
Total ARR for FY 2016-17	**4,898.32**	**4,893.26**
Revenue from Sale of Power	4,473.41	4,485.77
Revenue from recovery of Water and SLDC Charges	112.98	112.82
Recovery of Impact of APTEL Judgement and Revenue Gap	514.30	514.30
Total Revenue	5,100.69	5,112.90
Revenue Gap/(Surplus) for FY 2016-17	**(202.26)**	**(219.64)**

After applying the carrying cost for 2 years, i.e., from mid-point of FY 2016-17 to mid-point of FY 2018-19 on this Revenue Surplus of Rs. 219.64 Crore, the total amount which is required to be factored in the revenue requirement of CSPDCL for FY 2018-19 works out to Rs. 279.52 Crore.

4 PROVISIONAL TRUE-UP FOR CSPTCL FOR FY 2016-17

4.1 Background

The Commission notified the CSERC MYT Regulations, 2015 for the 3rd MYT Control Period from FY 2016-17 to FY 2020-21 on September 9, 2015. Subsequently, the Commission issued the MYT Order on April 30, 2016 approving the ARR of CSPTCL for the Control Period from FY 2016-17 to FY 2020-21 and Transmission tariff for FY 2016-17. CSPTCL submitted the Petition for provisional Truing up for FY 2016-17 based on the Provisional Accounts for FY 2016-17.

Regulation 10.3 of the CSERC MYT Regulations, 2015 specifies as under:

"10.3. In case the audited accounts are not available, the provisional truing up shall be done on the basis of un-audited/ provisional account and shall be subject to further final truing up, as soon as the audited accounts is available."

In accordance with the above Regulation, the Commission has undertaken provisional Truing up for FY 2016-17 based on unaudited/provisional Accounts submitted by CSPTCL. The final Truing up for FY 2016-17 shall be done on the basis of Audited Accounts.

In this Chapter, the Commission has analysed all the elements of actual expenditure and revenue of CSPTCL for FY 2016-17 and undertaken the provisional truing-up of expenses and revenue in accordance with Regulation 10 of the MYT Regulations, 2015. The Commission has approved the sharing of gains and losses on account of controllable factors between CSPTCL and its beneficiaries, in accordance with Regulation 13 of the CSERC MYT Regulations, 2015.

4.2 Transmission System of CSPTCL

The physical status of transmission system of CSPTCL as on March 31, 2017, as submitted by CSPTCL, is shown in the Table below:

Table 4.2-1: Physical Status of Transmission System of CSPTCL as on March 31, 2017

Particulars	Units	As on March 31, 2017
A. EHV Transmission Lines		
400 kV	ckt. km.	1,915.52
220 kV	ckt. km.	3,478.51
132 kV	ckt. km.	5,753.38

Particulars	Units	As on March 31, 2017
+/-100 kV HVDC	ckt. km.	360.00
B. EHV Substations		
400 kV	No.	2
220 kV	No.	20
132 kV	No.	71
+/-100 kV HVDC	No.	1
C. Transformation Capacity of EHV Substations		
400/220 kV	MVA	1,575
220/132 kV	MVA	6,350
132/33kV	MVA	6,576
+/-100 kV HVDC	MVA	243

4.3 Transmission Losses

CSPTCL's Submission

CSPTCL submitted that based on the actual reading of the energy meters installed at the various points of the State's periphery, the actual Transmission Loss for FY 2016-17 was 2.81% as against the Loss of 3.22% approved in the MYT Order dated April 30, 2016. The computation of the Transmission Losses submitted by CSPTCL is shown in the Table below:

Table 4-2: Transmission Losses for FY 2016-17 as submitted by CSPTCL

Sr. No.	Particulars	FY 2016-17
1	State Generation Ex-Bus at 132 kV and above (MU)	16,712.97
2a	*Import from CTU Grid at CG Periphery at 132 kV and above (MU)*	*15,777.58*
2b	*Export to CTU Grid at CG Periphery at 132 kV and above (MU)*	*10,689.26*
2	Net Drawal from CTU Grid at State Periphery at 132 kV and above (MU)	5,088.33
3	IPPs/CPP Injection in CSPTCL System at 132 kV & above (MU)	1,481.31
4	Total Injection at State Grid of STU (MU) (1+2+3)	23,282.61

Sr. No.	Particulars	FY 2016-17
5	EHV Sales from Sub Station (MU)	2,387.85
6	Net Output to DISCOM (MU)	20,240.04
7	Total Output from CSPTCL System (MU) (5+6)	22,627.89
8	Transmission Loss (MU) (4-7)	654.72
9	Transmission Loss (%) (8/4*100)	2.81%

Commission's View

The Commission in MYT Order dated April 30, 2016, approved the Transmission Losses as 3.22% for each year of Control Period. The Commission has gone through details of source-wise actual injection of energy, actual EHV sales and JMR readings. The Commission do not like to comment on the correctness of the Transmission losses submitted by the Petitioner. However, for the provisional truing-up the submission of the petitioner has been considered.

4.4 Operations and Maintenance (O&M) Expenses

CSPTCL's Submission

CSPTCL submitted that the gross employee expenses (net of employee expenses on account of CSLDC) based on the provisional Accounts are Rs. 177.44 Crore against the employee expenses of Rs. 155.59 Crore (after excluding interim wage relief amount and Terminal Benefits) approved by the Commission in the MYT Order dated April 30, 2016 for FY 2016-17. CSPTCL submitted the details as shown in the following Table:

Table 4-3: Gross Employee Expenses as submitted by CSPTCL for FY 2016-17 (Rs. Crore)

Sr. No.	Particulars	FY 2016-17
		Provisional
1	Gross Employee Expenses (CSPTCL+CSLDC) excluding Terminal Benefits*	184.90
2	Less: CSLDC Employee Expenses (including interim wage relief)	7.47
3	CSPTCL Gross Employee Expenses	177.44

**includes 7.5% Interim Relief paid to the employees during FY 2016-17*

Further, the provision of arrears of Rs. 20.41 Crore to be paid to employees on account of wage revision due from April 1, 2014 to March 31, 2017 has been made in the provisional Accounts for FY 2016-17. CSPTCL submitted that this amount is being paid from FY 2017-18 onwards and requested the Commission to consider the same as per actuals in future years.

The capitalisation of employee expenses has been considered as Rs. 21.54 Crore as per the provisional Accounts for FY 2016-17. CSPTCL requested the Commission to approve Employee Expenses of Rs. 155.90 Crore (177.44 – 21.54) for FY 2016-17 based on the provisional Accounts.

CSPTCL submitted the details of R&M expenses and A&G expenses as shown in the following Table:

Table 4-4: Gross R&M expenses and A&G expenses submitted by CSPTCL for FY 2016-17 (Rs. Crore)

Sr. No.	Particulars	FY 2016-17
		Provisional
1	Gross A&G Expenses	49.39
2	*Less: CSLDC Expenses*	*0.58*
3	CSPTCL Gross A&G Expenses	48.81
4	Gross R&M Expenses	24.68
5	*Less: CSLDC Expenses*	*0.68*
6	CSPTCL Gross R&M Expenses	24.00

The capitalisation of A&G expenses has been considered as Rs. 2.00 Crore as per the provisional Accounts for FY 2016-17.

CSPTCL further submitted that under the head of '*Other Expenses*' in Note 9.3 of the Provisional Accounts for FY 2016-17, expenditure of Rs. 15.89 Crore has been mentioned in respect of the outsourced employees against vacant posts in CSPTCL. These expenses are in respect of wages paid to the outsourced employees and have been considered as a separate line item. As they are not regular employees of CSPTCL, hence, their wages are part of A&G Expenses. This includes expenditure of Rs. 0.10 Crore booked under CSLDC. The balance of Rs. 15.79 Crore has been considered in CSPTCL. These wages are required to be paid by CSPTCL to outsourced employees against the vacant post of CSPTCL for day to day operation and maintenance of existing/new EHV substations/offices, etc. Since, the nature of

expenses are similar to employee expenses for regular employees, CSPTCL requested the Commission to consider the same at par with employee expenses only for the purpose of computation of gain and losses of O&M expenses.

The comparison of actual O&M expenses vis-a-vis O&M expenses approved by the Commission is shown in the following Table:

Table 4-5: O&M Expenses as submitted by CSPTCL for FY 2016-17 (Rs. Crore)

Sr. No.	Particulars	FY 2016-17	
		MYT Order	Provisional
1	Gross Employee Expenses	155.59	177.44
2	Gross A&G Expenses	28.96	48.81
3	Gross R&M Expenses	29.68	24.00
4	Interim Wage Relief amount	11.75	0.00
5	**Gross O&M Expenses (excluding CSLDC)**	**225.98**	**250.25**
6	Employee expenses capitalized	-	*21.54*
7	A&G expenses capitalized	-	*2.00*
8	**Net O&M Expenses (excluding CSLDC)**	**225.98**	**226.71**

CSPTCL submitted that the actual O&M Expenses are slightly higher than that approved by the Commission in the MYT Order dated April 30, 2016 for FY 2016-17. CSPTCL requested the Commission to approve actual O&M expenses for FY 2016-17 based on the provisional Accounts as shown in the above Table.

Computation of Normative O&M Expenses

CSPTCL submitted that the MYT Regulations 2015 allows incentive/disincentive for better/under performance in operational norms so that such efforts are appropriately recognized and promoted, thereby, ensuring improved efficiency on a sustainable basis.

Regulation 13.1 of the MYT Regulations, 2015, as per amendment dated June 16, 2017 specifies as under:

"Provided further that employee cost shall not be factored in for sharing of gains or losses on account of operation & maintenance expenses,"

Accordingly, the employee expenses for FY 2016-17 have been considered based on actuals and have not been subjected to sharing of gains or losses. CSPTCL requested the Commission to approve Rs. 177.44 Crore as gross employee expenses and capitalisation of employee expenses as Rs. 21.54 Crore for FY 2016-17.

CSPTCL submitted that the normative A&G expenses and R&M expenses for FY 2016-17 have been computed as per the Regulations.

Additional O&M Expenses

CSPTCL submitted that the Commission has not separately notified any norms for new transmission lines or substations in the CSERC MYT Regulations 2015. In the absence of State specific norms, CSPTCL requested the Commission to allow Central Electricity Regulatory Commission (CERC) benchmarked tariff norms for such additional assets commissioned after March 31, 2016. CSPTCL submitted that in the MYT Order, the Commission has approved the normative O&M expenses for FY 2016-17 to FY 2020-21 by considering the increase in the base year, i.e., FY 2015-16 expenses, based on inflation-linked indices. FY 2015-16 normative O&M expenses were considered based on the average of normalized Net Present Value from FY 2010-11 to FY 2014-15 further escalated by relevant inflation rate. The actual O&M expenses of FY 2015-16 were not available while projecting normative O&M expenses for FY 2016-17 to FY 2020-21 at the time of the MYT Order.

CSPTCL submitted that as per Regulation 47.5 (g) of the CSERC MYT Regulations 2015, claim for additional O&M expenses on new transmission lines/substations commissioned after March 31, 2016 is permissible. CSPTCL requested the Commission to allow additional normative O&M expenses on new lines/sub-stations commissioned during FY 2015-16 (full year with inflation) and FY 2016-17 (for half year). CSPTCL submitted the addition of assets as shown in the Table below:

Table 4-6:Addition in Transmission Lines and Bays as submitted by CSPTCL

Sr. No	Particulars	Addition in FY 2015-16	Addition in FY 2016-17	Total Addition
	Transmission Lines (ckt. Km)			
1	Single Circuit Single Conductor	82.57	150.76	233.33
2	Double Circuit Single Conductor	169.75	32.5	202.25
3	**Total Transmission Lines**	**252.32**	**183.26**	**435.58**

Sr. No	Particulars	Addition in FY 2015-16	Addition in FY 2016-17	Total Addition
	Transmission Bays (Nos.)			
4	400 kV	-	-	-
5	220 kV	5	-	5
6	132 kV	34	27	61
7	+/- 100 kV HVDC	-	-	-
8	**Total No. of bays**	**39**	**27**	**66**

CSPTCL submitted the additional normative O&M Expenses for asset addition considering the applicable CERC norms as shown in the following Table:

Table 4-7: Additional Normative O&M expenses for Bays as submitted by CSPTCL (Rs. Crore)

Sr. No.	Particulars	Normative O&M of Bays in FY 2015-16	O&M Norms for Bays in FY 2015-16	Normative O&M expenses for assets capitalized in FY 2015-16	Normative O&M expenses for assets capitalized in FY 2016-17	Total Additional Normative O&M expenses for FY 2016-17
1	400 kV	0.00	0.00	0.00	0.00	0.00
2	220 kV	0.44	0.45	2.26	0.00	2.26
3	132 kV	0.31	0.32	10.98	4.34	15.32
4	+/- 100 kV HVDC	0.00	0.00	0.00	0.00	0.00
5	**Total No. of Substations**	**0.75**	**0.77**	**13.24**	**4.34**	**17.58**

Table 4-8: Additional Normative O&M expenses for Lines as submitted by CSPTCL (Rs. Crore)

Sr. No	Particulars	Normative O&M of Lines in FY 2015-16	O&M Norms for Lines in FY 2015-16	Normative O&M expenses for assets capitalized in FY 2015-16	Normative O&M expenses for assets capitalized in FY 2016-17	Total Additional Normative O&M expenses for FY 2016-17
1	Single Circuit Single Conductor	0.21	0.22	0.18	0.16	0.34
2	Double Circuit Single Conductor	0.31	0.32	0.55	0.05	0.60
3	**Total Lines**	**0.52**	**0.54**	**0.73**	**0.22**	**0.95**

The normative O&M expenses have been apportioned in the ratio of actual employee expenses, A&G expenses and R&M expenses to arrive at the normative A&G expenses and R&M expenses for the purposes of gain/loss calculation. Accordingly, the additional normative A&G expenses and R&M expenses are Rs. 3.83 Crore and Rs. 1.96 Crore, respectively, for FY 2016-17.

Further, CSPTCL has not considered Rs. 15.79 Crore towards wages paid to the outsourced employees against vacant posts as part of A&G expenses eligible for the purpose of computation of gain and loss of A&G expenses. The net A&G expenses and R&M expenses as per the provisional Accounts are Rs. 31.01 Crore and Rs. 24.00 Crore (net of capitalisation), respectively, for FY 2016-17. The same have been considered for sharing of gain/(loss) for FY 2016-17 as shown in the following Table:

Table 4-9: Sharing of gain/(loss) for A&G expenses and R&M expenses for FY 2016-17 as submitted by CSPTCL (Rs. Crore)

Sr. No	Particulars	Normative	Provisional	Gain/(Loss)
1	Net A&G and R&M expenses	29.50	31.01	(1.51)
2	Net R&M expenses	28.28	24.00	4.28
3	Total Gain/(Loss)			2.77
4	**CSPTCL share (1/2 of Total Gain/(Loss))**			**1.39**

The gain of Rs. 1.39 Crore on account of lower actual A&G expenses and R&M expenses as compared to the normative A&G expenses and R&M expenses have been considered as part of the Provisional true-up of ARR for FY 2016-17.

Commission's View

As regards O&M Expenses, Regulation 47.5 of the MYT Regulations, 2015 specifies as under:

*"**47.5 Operation and Maintenance expenses***

Employee Cost

c) The employee cost, excluding pension fund contribution and impact of pay revision arrears for the base year i.e. FY 16, shall be derived on the basis of the normalized average of the actual employee expenses excluding pension fund contribution and impact of pay revision arrears available in the accounts for the previous five (5) years immediately preceding the base year FY 16, subject to prudence check by the Commission. Any other expense of nonrecurring nature shall also be excluded while determining normalized average for the previous five (5) years.

d) The normalization shall be done by applying last five year average increase in Consumer Price Index (CPI) on year to year basis. The average of normalized net present value for FY 2010-11 to FY 15, shall then be used to project base year value for FY 16. The base year value so arrived, shall be escalated by the above inflation rate to estimate the employee expense (excluding impact of pension fund contribution and pay revision, if any) for each year of the Control Period.

At the time of true up, the employee costs shall be considered after taking into account the actual increase in CPI during the year instead of projected inflation for that period.

Provided further that impact of pay revision (including arrears) and pension fund contribution shall be allowed on actual during the true-up as per accounts, subject to prudence check and any other factor considered appropriate by the Commission.

A&G Expenses and R&M Expenses

e) The administrative and general expenses and repair and maintenance expenses, for the base year i.e. FY 16, shall be derived on the basis of the normalized average of the actual administrative and general expenses and repair and maintenance expenses, respectively available in the accounts for the previous five (5) years immediately preceding the base year FY 16, subject to prudence check by the Commission. Any expense of non-recurring nature shall be excluded while determining normalized average for the previous five (5) years.

f) *The normalization shall be done by applying last five year average increase in Wholesale Price Index (WPI) on year to year basis. The average of normalized net present value for FY 2010-11 to FY 15, shall then be used to project base year value for FY 16. The base year value so arrived, shall be escalated by the above inflation rate to estimate the administrative and general expense and repair and maintenance expenses for each year of the Control Period.*

At the time of true up, the administrative and general expenses and repair and maintenance expenses shall be considered after taking into account the actual inflation instead of projected inflation for that period.

g) ***The additional O&M Expenses on account of new transmission lines/ substations commissioned after March 31, 2016 shall be allowed by the Commission subject to prudence check at the time of truing up exercise." (emphasis added)***

In the MYT Order, the Commission determined the O&M Expenses for the Control Period from FY 2016-17 to FY 2020-21 in accordance with the above Regulations.

The above Regulations specify that at the time of truing up, the O&M Expenses shall be considered after taking into account the actual inflation instead of projected inflation for that period. The Regulation does not require the base O&M expenses as approved in the MYT Order to be revised.

Accordingly, the Commission has computed the normative O&M expenses for FY 2016-17 by applying the actual inflation of FY 2016-17 on base O&M expenses for FY 2015-16, as approved in the MYT Order. The Commission has considered the actual inflation of CPI and WPI levels for FY 2016-17 over CPI and WPI levels of FY 2015-16. The Commission has considered escalation factor of 4.12% for employee expenses and 1.73% for R&M expenses and A&G Expenses. Accordingly, the normative O&M Expenses computed for FY 2016-17 is as shown in the following Table:

Table 4-10: Normative O&M Expenses for FY 2016-17 as computed by the Commission (Rs. Crore)

Particulars	FY 2015-16	FY 2016-17	
	Base Year Normative Expenses	Approved in MYT Order	Revised Normative Expenses
Employee Expenses	142.68	155.59	148.56
A&G Expenses	27.12	28.96	28.12
R&M Expenses	27.80	29.68	28.82
Grand total	**197.60**	**214.23**	**205.50**

Further, as per the Regulation 47.5 (g) of the MYT Regulations 2015, the Commission shall consider the additional O&M expenses on account of new transmission lines/sub-stations commissioned after March 31, 2016. In order to compute the additional O&M expenses on account of new transmission lines/sub-stations commissioned after March 31, 2016, CSPTCL has considered the norms specified under Regulation 29 of CERC (Terms and Conditions of Tariff) Regulations, 2014. The Commission is of the view that the nature of the assets for which the CERC norms have been computed are different from the additional assets deployed by CSPTCL. Hence, the Commission has not considered the CERC norms for allowance of additional O&M expenses on account of new transmission lines/substations. Instead, the Commission has benchmarked the approved GFA with the base O&M expenses allowed for FY 2015-16 and computed the additional O&M in the same proportion for corresponding increase in GFA.

The additional normative A&G and R&M Expenses approved by the Commission on account of new transmission lines and sub-stations is computed as shown in the following Table:

Table 4-11: Computation of Additional A&G and R&M expenses for FY 2016-17

Particulars	Legend/Formula	Amount (Rs. Crore)
Average of Opening and Closing GFA for FY 2015-16	A	3,501.95
Average of Opening and Closing GFA for FY 2016-17	B	3,770.16
Increase in GFA (%)	C=(B-A)/A x 100	7.66%
Normative A&G Expenses approved for FY 2016-17	D	28.12
Normative R&M Expenses approved for FY 2016-17	E	28.85
Additional A&G Expenses on account of increase in GFA for FY 2016-17	F=D x C	2.15
Additional R&M Expenses on account of increase in GFA for FY 2016-17	G = E x C	2.21

For the purpose of the provisional truing up for FY 2016-17, the Commission approves the normative A&G and R&M Expenses including additional A&G and R&M expenses on account of new transmission lines/sub-stations. The Commission has undertaken sharing of gains and losses of normative expenses vis-à-vis actual expenses as per CSERC MYT Regulations, 2015.

The Commission has provisionally considered the A&G and R&M expenses as per provisional accounts for sharing of gains and losses. Further, the Commission rejects CSPTCL's approach of not considering Rs. 15.79 Crore towards wages paid to the outsourced employees as part of A&G expenses for the purpose of computation of gain and loss of A&G expenses. Expenses incurred by CSPTCL (or any other Licensee) towards outsourcing is always considered under A&G expenses, and cannot be notionally considered under employee expenses, for the purpose of computing the sharing of gains/losses.

As regards the sharing of gains and losses, the following provision has been inserted in Regulation 13.1 by the First Amendment to the CSERC MYT Regulations, 2015 on June 16, 2017:

"Provided further that employee cost shall not be factored in for sharing of gains or losses on account of operations and maintenance expenses, … …"

Accordingly, the Commission approves the Employee Expenses at actuals as per provisional Accounts for FY 2016-17, and no sharing of gains and losses have been considered for Employee Expenses.

The sharing of gains and losses in O&M expenses, computed after provisional truing up for FY 2016-17 is shown in the following Table:

Table 4-12: Sharing of Gains and Losses in O&M expenses as provisionally approved by the Commission (Rs. Crore)

Particulars	Revised normative O&M expenses, including additional expenses for new assets	Actual based on provisional accounts	Gains/ (Losses)	Sharing of Gains/(Losses) at 50:50	Net Entitlement of O&M Expenses
Employee Expenses	159.94	155.90	-	-	155.90
A&G Expenses	30.27	46.63	(16.36)	(8.18)	38.45
R&M Expenses	31.03	23.88	7.15	3.57	27.46
Total O&M expenses	221.23	226.41	(9.21)	(4.61)	221.80

In this Order, the Commission approves the O&M expenses based on provisional Accounts for FY 2016-17. The final approval of O&M Expenses shall be accorded at time of truing up based on audited accounts.

4.5 Contribution to Pension and Gratuity Fund

CSPTCL's Submission

CSPTCL submitted that the Commission in the MYT Order dated April 30, 2016 has allowed Contribution to Pension and Gratuity (P&G) fund of Rs. 49.16 Crore for FY 2016-17. CSPTCL has considered the actual contribution to pension and gratuity of Rs. 49.16 Crore net of CSLDC expenses, as per provisional Accounts.

Commission's View

The Commission provisionally approves the Contribution to Pension and Gratuity Fund as per provisional Accounts as submitted by CSPTCL as shown in the following Table:

Table 4-13: Contribution to P&G Fund as approved by the Commission (Rs. Crore)

Sr. No.	Particulars	MYT Order	CSPTCL's Submission	Approved for provisional Truing up
1	Contribution to Pension and Gratuity Fund	49.16	49.16	49.16

4.6 Gross Fixed Assets and Means of Finance

CSPTCL submitted that the Commission in the MYT Order had approved the methodology for determination of capital structure of GFA into Consumer Contribution, debt and equity. CSPTCL submitted that the capital structure for FY 2016-17 has been determined based on the following:

- Opening Capital Work in Progress (CWIP) for FY 2016-17 has been considered equal to the closing CWIP for FY 2015-16 as per the true-up of ARR for FY 2015-16.
- Closing CWIP of Rs. 571.12 Crore has been considered as per the provisional Accounts for FY 2016-17.
- Actual loan addition has been considered as Nil as per the provisional Accounts for FY 2016-17
- Actual equity addition has been considered as Rs. 236.93 Crore as per the

provisional Accounts for FY 2016-17

- GFA addition of Rs. 230.29 Crore (net of GFA addition for CSLDC) has been considered as per the provisional Accounts for FY 2016-17
- Assets generated on account of Consumer Contribution have been considered as Nil by considering the value as Rs.1 only as per Accounting Standards.
- The normative debt: equity ratio has been considered as 70:30 for additional capitalisation during the year as per the CSERC MYT Regulations, 2015.

CSPTCL submitted the Capital Structure for FY 2016-17 as shown in the following Table:

Table 4-14: Capital Structure submitted by CSPTCL for FY 2016-17 (Rs. Crore)

Sr. No.	Particulars	FY 2015-16	FY 2016-17
A	**Gross Fixed Assets (GFA)**		
1	Opening GFA	3348.88	3655.02
2	Opening CWIP	564.63	564.47
3	Opening Capex	3913.51	4219.50
4	Capitalisation during the Year	306.14	230.29
5	Closing GFA	3655.02	3,885.31
6	Closing CWIP	564.47	571.12
7	Closing Capex	4219.50	4,456.43
B	**Grants and Consumer Contribution**		
1	Opening Grant and Contribution	101.56	101.56
2	Consumer Contribution/Grants during the Year	-	-
3	Closing Consumer Contribution	101.56	101.56
4	Consumer Contribution in Opening GFA	46.06	46.06
5	Consumer Contribution in Closing GFA	46.06	46.06
C	**Loan Borrowed**		
1	Opening Borrowed Loan	1,969.43	2,144.62
2	Loan Borrowed during the Year	175.19	0.00
3	Closing Borrowed Loan	2,144.62	2,144.62
4	Borrowed Loan in Opening GFA	2,077.83	2,322.74
5	Borrowed Loan in Closing GFA	2,322.74	2,483.95

Sr. No.	Particulars	FY 2015-16	FY 2016-17
D	**Equity**		
1	Opening Gross Equity	1,842.52	1973.32
2	Equity addition during the Year	130.80	236.93
3	Closing Gross Equity	1973.32	2,210.25
4	Gross Equity in Opening GFA	1,224.99	1,286.22
5	Gross Equity in Closing GFA	1,286.22	1,355.31
6	Average Gross Equity during the year	1,255.61	1,320.76
E	**Permissible Equity**		
1	Permissible Equity in Opening GFA	847.87	909.10
2	Permissible Equity in Closing GFA	909.10	978.19
3	Average Gross Permissible Equity during the year	878.48	943.64
F	**Normative Loan**		
1	Opening Normative Loan	377.12	377.12
2	Closing Normative Loan	377.12	377.12
3	Average Normative Loan	377.12	377.12

CSPTCL submitted the means of finance for GFA addition during FY 2016-17 at normative debt: equity ratio of 70:30. Accordingly, CSPTCL submitted the debt amount of Rs. 161.20 Crore and Equity amount of Rs. 69.09 Crore for FY 2016-17. CSPTCL requested the Commission to approve the capital structure and means of finance including GFA addition for FY 2016-17 based on the provisional Accounts as per the calculation provided in the above Table.

Commission's View

The Commission has approved the closing GFA for FY 2015-16 as Rs. 3655.02 Crore after True-up in the Order dated March 31, 2017. The Commission has accordingly considered the same amount as Opening GFA for FY 2016-17. The Commission notes that provisional Accounts for FY 2016-17 indicate the capitalisation of Rs. 231.02 Crore during the year. Out of this, the amount of Rs. 0.74 Crore is pertaining to CSLDC. The Commission has considered the capitalisation of Rs. 230.29 Crore (net of Rs. 0.74 Crore GFA addition for CSLDC) for FY 2016-17 as submitted by CSPTCL based on provisional Accounts.

As regards the funding of capitalisation, the Commission has not considered any grants for FY 2016-17. Further, normative Debt: Equity ratio of 70:30 has been considered as per Regulation 17 of the MYT Regulations, 2015.

The Commission provisionally approves the GFA addition and its funding for FY 2016-17 as shown in the following Table:

Table 4-15: GFA Addition and Means of Finance approved by Commission for FY 2016-17 (Rs. Crore)

Sr. No	Particulars	CSPTCL Petition	Approved after provisional True-up
1	GFA Addition in FY 2016-17	230.29	230.29
	Means of Finance		
2	Consumer Contribution	-	-
3	Equity	69.09	69.09
4	Debt	161.20	161.20
5	**Total Capitalisation**	**230.29**	**230.29**

4.7 Depreciation

CSPTCL's Submission

CSPTCL submitted that it has computed depreciation of Rs. 175.12 Crore in accordance with Regulation 24 of the CSERC MYT Regulations, 2015. CSPTCL requested the Commission to approve the depreciation of Rs. 175.12 Crore for provisional true-up of ARR for FY 2016-17.

Commission's View

The Commission has approved the depreciation for FY 2016-17 as per the approach adopted in the past Orders. The closing GFA for FY 2015-16 as approved in the true up for FY 2015-16, has been considered as the opening GFA for FY 2016-17. The GFA addition for FY 2016-17 has been considered as approved by the Commission earlier in this Chapter. The closing value of Consumer Contribution for FY 2015-16 as approved in the true up for FY 2015-16, has been considered as the opening value of Consumer Contribution for FY 2016-17, and the Consumer Contribution in GFA addition for FY 2016-17 has been considered as Nil as approved by the Commission in earlier sub-section. The weighted average depreciation rate of 5.25%, computed on the basis of deprecation rates specified in the MYT Regulations, 2015, has been considered. The Commission notes that in True-up Order for FY 2015-16, the

depreciation on fully depreciated assets up to FY 2015-16 was computed as Rs. 19.79 Crore. CSPTCL submitted the details of depreciation on fully depreciated assets during FY 2016-17, which works out to Rs. 0.04 Crore. Accordingly, in the present Order, the Commission has considered the deprecation on fully depreciated assets up to FY 2016-17 as Rs. 19.83 Crore. The depreciation computed by the Commission for FY 2016-17 is shown in the Table below:

Table 4-16: Depreciation approved by the Commission for FY 2016-17 (Rs. Crore)

Sr. No.	Particulars	MYT Order	CSPTCL Petition	Approved after Provisional True-up
1	Opening GFA excluding CSLDC	3,666.31	3,655.02	3,655.02
2	Add: Capitalization during the year	433.71	230.29	230.29
3	GFA at the end of the year excluding CSLDC	4,100.02	3,885.31	3,885.31
4	Average GFA for the year	3,883.16	3,770.17	3,770.17
5	Depreciation Rate	5.25%	5.25%	5.25%
6	Depreciation @ applicable rates as per Regulations	203.87	198.05	198.05
7	Opening Consumer Contribution	46.06	46.06	46.06
8	Addition: Consumer Contribution during the year	0.00	0.00	0.00
9	Closing Consumer Contribution	46.06	46.06	46.06
10	Average Consumer Contribution	46.06	46.06	46.06
11	Less: Depreciation on Consumer Contribution on live assets	2.42	2.42	2.42
12	Less: Depreciation on fully depreciated assets	19.79	20.51	19.83
13	**Net Depreciation**	**181.66**	**175.12**	**175.80**

4.8 Interest on Loan

CSPTCL's Submission

CSPTCL has submitted that it has calculated interest on loan as per Regulation 23 of CSERC MYT Regulations, 2015. CSPTCL has submitted the actual loan details as per the provisional Accounts for FY 2016-17. CSPTCL has considered the approved closing normative loan balance for FY 2015-16 as per the true-up Order dated March 31, 2017 as the opening normative loan balance for FY 2016-17. The debt component of 70% of the GFA addition during FY 2016-17 has been considered as the normative

loan addition during the year. The allowable depreciation for the year has been considered as the normative repayment for the year. The actual weighted average interest rate of 10.95% has been considered for computation of the interest on loan for FY 2016-17. CSPTCL requested the Commission to approve Interest on Loan of Rs. 193.37 Crore for provisional true-up of ARR for FY 2016-17 as against the amount of Rs. 224.71 Crore approved in the MYT Order.

Commission's View

The Commission has approved interest on loan capital for FY 2016-17 as per Regulation 23 of the CSERC MYT Regulations, 2015.

The Commission has considered the closing net normative loan balance for FY 2015-16 as approved after True-up, as the opening net normative loan balance for FY 2016-17. The addition of normative loan has been considered based on actual capitalisation, as considered in earlier Section of this Order. The repayment has been considered equal to net depreciation approved by the Commission for FY 2016-17. For computation of weighted average rate of interest, the Commission has considered the actual loan details and applicable rate of interest as per the provisional accounts. The Commission has computed the weighted average rate of interest of 10.95%, as per Regulation 23.5 of CSERC MYT Regulations, 2015 based on actual loan portfolio at the beginning of the year. The interest on loan approved in provisional true up for FY 2016-17 is shown in the Table below:

Table 4-17: Interest on Loan for FY 2016-17 approved by Commission (Rs. Crore)

Sr. No.	Particulars	MYT Order	CSPTCL Petition	Approved after Provisional True-up
1	Total Opening Net Loan	1,782.12	1,772.71	1,772.71
2	Repayment during the period	181.03	175.12	175.80
3	Additional Capitalization of Borrowed Loan during the year	303.60	161.20	161.20
4	Total Closing Net Loan	1,904.69	1,758.80	1,758.12
5	Average Loan during the year	1,843.40	1,765.75	1,765.41
6	Weighted Average Interest Rate	12.20%	10.95%	10.95%
7	**Interest Expenses**	**224.71**	**193.37**	**193.33**

4.9 Return on Equity (RoE) and Income Tax

CSPTCL's Submission

CSPTCL submitted it has computed Return on Equity (ROE) as per Regulation 22 of the CSERC MYT Regulations, 2015 using the base rate of Return on Equity of 15.50% (without grossing up by MAT rate of 20.9605%). The Income Tax of Rs. 21.17 Crore has been separately claimed based on actual Tax paid during the year as per provisional Accounts. CSPTCL has considered the closing permissible equity balance of FY 2015-16 (as approved in true-up Order dated March 31, 2017) as the opening permissible equity balance for FY 2016-17. The equity addition during FY 2016-17 has been considered as 30% of the actual capitalisation during the year. CSPTCL requested the Commission to approve ROE of Rs. 146.26 Crore for provisional true-up for FY 2016-17. It also requested the Commission to consider the similar approach for CSPTCL for computation of ROE by grossing up return on equity with MAT rate of 20.96%, if adopted for CSPGCL and CSPDCL.

Commission's View

Regulation 22 of the MYT Regulations, 2015 specifies that Return on Equity (ROE) shall be computed by grossing up the base rate with the prevailing MAT rate of the base year for the projection purposes. However, at the time of truing up, actual Tax rate applicable shall be considered. The Commission notes that CSPTCL has paid actual Income Tax of Rs. 21.17 Crore based on the provisional Accounts. CSPTCL has requested for separate approval of actual Income Tax paid and claimed ROE at base rate.

For the purpose of the provisional Truing up, the Commission has provisionally approved ROE at rate of 15.50% as per Regulation 22 of the CSERC MYT Regulations, 2015 and allowed the Income Tax separately.

For computation of ROE, the Commission has considered the closing equity as approved for FY 2015-16 after True-up, as opening equity for FY 2016-17. The equity addition has been considered based on the actual capitalisation as approved in earlier Section of this Order. The Commission provisionally approves the ROE for FY 2016-17 as shown in the following Table:

Table 4-18: Return on Equity for FY 2016-17 approved by Commission (Rs. Crore)

Sr. No.	Particulars	MYT Order	CSPTCL Petition	Approved after Provisional True-up
1	Permissible Equity in Opening GFA	911.36	909.10	909.10
2	Addition of Permissible Equity during the year	130.11	69.09	69.09
3	Permissible Equity in Closing GFA	1,041.47	978.19	978.19
4	Average Gross Permissible Equity during the year	976.42	943.64	943.64
5	Rate of Return on Equity	15.50%	15.50%	15.50%
6	**Return on Equity**	**151.34**	**146.26**	**146.26**

CSPTCL was asked to submit the detailed computation of Income Tax and related documentary evidence for actual Income Tax paid for FY 2016-17. Based on the scrutiny of the actual Income Tax paid, the Commission provisionally approves the Income Tax of Rs. 21.17 Crore for provisional Truing up for FY 2016-17.

4.10 Interest on Working Capital (IoWC)

CSPTCL's Submission

CSPTCL submitted that it has considered one month of O&M Expenses, maintenance spares at 40% of R&M expenses and receivables equivalent to one month of fixed cost for computing the working capital requirement for FY 2016-17. CSPTCL has considered the interest rate of 12.80% (i.e., SBI Base Rate on April 1, 2016 plus 350 basis points) for computing IoWC for FY 2016-17. CSPTCL requested the Commission to approve IoWC of Rs. 12.23 Crore for FY 2016-17.

Commission's View

The Commission has computed IoWC in accordance with Regulation 25 of the MYT Regulations, 2015. For computation of working capital requirement as per the formula specified in the CSERC MYT Regulations, 2015, the Commission has considered the revised normative value of O&M expenses for FY 2016-17 as approved in this Order in earlier Section. Further, the receivables have been considered based on the actual revenue billed by CSPTCL including past revenue gaps during FY 2016-17. The interest rate of 12.80% has been considered as per Regulation 25.4 of the MYT

Regulations, 2015. The normative IoWC approved by the Commission in the provisional true-up for FY 2016-17, is shown in the Table below:

Table 4-19: Interest on Working Capital approved by Commission for FY 2016-17 (Rs. Crore)

Sr. No.	Particulars	MYT Order	CSPTCL Petition	Approved after Provisional True-up
1	O&M expenses for One Month	17.85	18.89	18.44
2	Maintenance Spares @ 40% of R&M Expenses	11.87	9.60	12.41
3	Receivables @ 1 Month of Fixed Cost	68.62	67.07	76.12
4	Total Working Capital requirement	98.34	95.57	106.96
5	Less: Security Deposit from Transmission Users	-	-	-
6	Net Working Capital Requirement	98.34	95.57	106.96
7	Rate of Interest on WC	13.20%	12.80%	12.80%
8	**Net Interest on Working Capital**	**12.98**	**12.23**	**13.69**

4.11 Prior Period Expenses/(Income)/other debits

CSPTCL's Submission

CSPTCL submitted the net prior period expenses of Rs. 0.04 Crore for FY 2016-17 as per the provisional accounts.

Commission's View

The Commission sought the year-wise details of each head of prior period (income)/expenses from CSPTCL. The prior period (income)/expense for each head have been allowed based on the treatment of expenses approved by the Commission in the truing up for the respective year.

The prior period income includes the amount pertaining to Other Income for FY 2014-15. Such income was allowed by the Commission at actuals in its previous Order as submitted by CSPTCL after scrutinising the audited accounts for that year, and hence, the prior period income has been considered in full.

The Prior period expense includes the employee cost of Rs. 0.13 Crore for FY 2015-16. The Commission has approved the sharing of gain for FY 2015-16 after true-up. Hence the Commission has considered only 50% of the prior period employee expenses. Thus, the net prior period (income)/expense approved for provisional Truing-up for FY 2016-17 is shown in the Table below:

Table 4-20: Prior Period (Income)/Expense approved by Commission for FY 2016-17 (Rs. Crore)

Sr. No.	Particulars	CSPTCL Petition	Approved after provisional True-up
1	**Prior Period (Income)**		
1.1	Other Income related to previous year	0.08	0.08
1.2	**Sub-total**	**0.08**	**0.08**
2	**Prior Period Expense**		
2.1	Employee Costs	0.13	0.06
2.2	**Sub-total**	**0.13**	**0.06**
3	**Net Prior Period (Income)/Expense**	**0.04**	**(0.02)**

4.12 Non-Tariff Income

CSPTCL's Submission

CSPTCL submitted Non-Tariff income of Rs. 23.63 Crore for FY 2016-17 based on provisional Accounts after excluding the Non-Tariff Income of Rs. 1.18 Crore for CSLDC.

Commission's View

For the purpose of provisional truing up for FY 2016-17, the Commission has considered the Non-Tariff Income for Transmission Business as per Segmental notes of provisional Accounts submitted by CSPTCL. Accordingly, the Commission considers Non-Tariff income of Rs. 23.69 Crore for Transmission and Rs. 1.11 Crore for CSLDC for FY 2016-17.

The Non-Tariff Income provisionally approved for FY 2016-17 is shown in the Table below:

Table 4-21: Non-Tariff Income approved by the Commission for FY 2016-17 (Rs. Crore)

Sr. No	Particulars	MYT Order	CSPTCL Petition	Approved after Provisional True-up
1	Non-Tariff Income	22.35	23.63	23.69

4.13 Incentive/Penalty on Transmission System Availability Factor (TSAF)

CSPTCL's Submission

CSPTCL submitted that Target Availability of the transmission system has to be specified as per Regulation 51 of the CSERC MYT Regulations 2015, for incentive/penalty payable/levied to a Transmission Licensee. In the MYT Order, the Commission has approved the annual Target Availability factor for incentive/penalty as 99% for FY 2016-17 and stipulated the modalities for computation of incentive/penalty on account of actual Transmission Availability factor.

CSPTCL submitted that it has achieved Transmission System Availability Factor of 99.93% for FY 2016-17 as against the target of 99%. Accordingly, CSPTCL has claimed the incentive of Rs. 3.05 Crore for FY 2016-17 for provisional truing up.

Commission's View

As regards Incentive/Penalty calculation related to the Transmission System Availability Factor, the Commission in the MYT Order has stipulated as under:

*"**10.3.11 Incentive/Penalty Calculation***

A. As per Clause 51 of the MYT Regulations, 2015, target availability of transmission system has to be specified for the control period for incentive/penalty payable/levied to a transmission licensee.

B. Annual target availability factor for incentive/penalty consideration shall be 99% for entire MYT Control Period from FY 2016-17 to FY 2020-21:

Provided further that no incentive/penalty shall be payable for availability beyond 99.75%:

C. The transmission licensee shall be entitled to incentive/penalty on achieving the annual availability beyond/lower than the target availability in accordance with the following formula:

Incentive/Penalty = Annual Fixed Charges for that year x (Annual availability achieved – Target availability) / Target availability

D. Incentive/Penalty shall be shared equally (50:50) between the transmission licensee and beneficiaries."

The Commission, in the present Order, has computed the Incentive/Penalty in accordance with the above said principle set by the Commission.

The Commission notes that the actual Transmission System Availability Factor duly certified by CSLDC for FY 2016-17 is 99.93%, which is higher than the Target Transmission System Availability Factor. Hence, CSPTCL is entitled for Incentive.

Accordingly, the Commission provisionally approves the Incentive on account of Transmission System Availability Factor for FY 2016-17 as shown in the Table below:

Table 4-22: Incentive for Higher Transmission System Availability submitted by CSPTCL for FY 2016-17 (Rs. Crore)

Sr. No.	Particulars	CSPTCL Petition	Approved after Provisional True-up
1	Annual Transmission System Availability Factor (%)	99.93%	99.93%
2	Annual Transmission System Target Availability Factor (%)	99.00%	99.00%
4	Net ARR	804.91	800.54
5	Incentive/(Penalty)	6.10	6.06
6	Sharing of gain/(loss) (50%)	3.05	3.03

4.14 Aggregate Revenue Requirement

Based on the above, the ARR approved for provisional truing-up for FY 2016-17 is shown in the Table below:

Table 4-23: Aggregate Revenue Requirement (ARR) for FY 2016-17 approved by the Commission (Rs. Crore)

Sr. No.	Particulars	MYT Order	CSPTCL Petition	Approved after Provisional True-up
1	Employee Expenses	155.59	177.44.	177.44
2	A&G Expenses	28.96	48.63	48.63
3	R&M Expenses	29.68	23.88	23.88
4	Terminal Benefits	49.16	49.16	49.16
5	Interim Wage Relief	11.75	-	-
6	Depreciation	181.66	175.12	175.80
7	Interest on Loan	224.71	193.37	193.33
8	Interest on Working capital	12.98	12.42	13.69
9	Prior Period (Income)/Expenses	-	0.04	(0.02)
10	Return on Equity	151.34	146.26	146.26
11	Gain/(Loss) on sharing O&M efficiency	-	1.53	(4.61)
12	Incentive on Transmission Availability	-	3.05	3.03
13	Income Tax	-	21.17	21.17
14	Less: Non-Tariff Income	22.35	23.63	23.69
15	**Aggregate Revenue Requirement (ARR)**	**823.49**	**804.91**	**799.93**

4.15 Revenue from Transmission Charges

CSPTCL's Submission

CSPTCL submitted that the revenue from Transmission Charges for FY 2016-17 based on the provisional Accounts is Rs. 913.39 Crore. CSPTCL submitted the break-up of revenue from operations for CSPTCL is as shown in the following Table:

Table 4-24: Revenue Break-up for FY 2016-17 submitted by CSPTCL (Rs. Crore)

Sr. No.	Particulars	FY 2016-17
1	AFC for FY 2016-17 as approved in MYT Order	823.49
2	Gap/(Surplus) of FY 2014-15 with carrying cost upto FY 2016-17 as approved in MYT Order dated 30.04.2016	(0.36)
3	Impact due to compliance of APTEL Judgment in Appeal No. 308/2013	90.27
4	Total Annual Transmission Charges to be billed for FY 2016-17	913.39

CSPTCL considered the revenue of Rs. 823.49 Crore towards Annual Fixed Cost approved in MYT Order for FY 2016-17 for the purpose of provisional truing up.

Commission's View

The Commission notes that CSPTCL has considered the revenue of Rs. 823.49 Crore based on provisional Accounts. The Commission notes that CSPTCL has not considered the revenue towards the past gaps approved in the MYT Order. The past gaps have also not been considered in the Net ARR. However, for the purpose of the provisional truing up, the Commission has considered the past gaps approved in the MYT Order in the ARR as well as in the revenue.

Further, the Commission sought the consumer-wise break-up of actual revenue billed in FY 2016-17 from CSPTCL. CSPTCL submitted the following break-up for revenue billed during FY 2016-17:

Table 4-25: Revenue billed during FY 2016-17 by CSPTCL (Rs. Crore)

Sr. No.	Particulars	FY 2016-17
1	Revenue from CSPDCL	836.52
2	MTOA Charges/Revenue from Others	57.20
3	STOA- Revenue from CSPDCL	6.55
4	STOA- Revenue from Others	13.12
5	**Grand Total**	**913.39**

The Commission notes that CSPTCL has billed total revenue of Rs. 843.06 Crore to CSPDCL during FY 2016-17. The same amount has been considered in power purchase expenses of CSPDCL in FY 2016-17, for the purpose of the provisional Truing up.

Accordingly, for the purpose of the provisional truing up, the Commission has considered the revenue of Rs. 913.39 Crore based on provisional Accounts for FY 2016-17.

4.16 Revenue Gap/(Surplus) for FY 2016-17

CSPTCL submitted the standalone Revenue Gap/(surplus) for FY 2016-17 as shown in the following Table:

Table 4-26: Revenue Gap/(Surplus) submitted by CSPTCL (Rs. Crore)

Sr. No.	Particulars	FY 2016-17
		Provisional True-up
1	Aggregate Revenue Requirement	804.88
2	Less: Transmission Income allowed as AFC for FY 2016-17	823.49
3	Standalone Revenue Gap/(Surplus)	(18.61)

CSPTCL further submitted that the surplus of FY 2014-15 along with carrying cost has been adjusted against the revenue recovery allowed in FY 2016-17. Similarly, the Revenue Gap of Rs. 90.27 Crore, towards the impact of Hon'ble APTEL Judgement in Appeal No. 308 of 2013, has been adjusted against the revenue recovery allowed during FY 2016-17. Hence, there is no gap or surplus carried forward for FY 2016-17.

Thus, CSPTCL requested the Commission to approve stand-alone Revenue Surplus of Rs. 18.61 Crore along with the carrying cost for FY 2016-17 and FY 2017-18, which will be adjusted in the ARR of CSDPCL for FY 2018-19.

Commission's View

The Commission has computed the Revenue Gap/(Surplus) after provisional true-up for FY 2016-17 for CSPTCL as shown in the Table below:

Table 4-27: Revenue Gap/(Surplus) approved by Commission (Rs. Crore)

Sr. No.	Particulars	Approved after Provisional True-up
1	Aggregate Revenue Requirement	799.93
2	Add: Past Revenue Gaps approved in MYT Order	89.91
3	Net ARR	889.84
2	Less: Revenue from Transmission Charges	913.39
3	**Revenue Gap/(Surplus)**	**(23.55)**

The Commission hereby approves the Revenue Surplus of Rs. 23.55 Crore after provisional truing up for FY 2016-17. After applying the carrying cost for two years, i.e., from mid-point of FY 2016-17 to mid-point of FY 2018-19 on this Revenue Surplus, the total amount which is required to be factored in the revenue requirement of CSPDCL for FY 2018-19 works out to Rs. 29.98 crore.

4.17 Proposed STOA Charges for FY 2018-19

The Commission had considered maximum demand of 4500 MW during FY 2015-16 for arriving at the short-term open access charges for FY 2016-17. The actual unrestricted maximum demand recorded during FY 2017-18 was 4318 MW in September 2017 and after considering the past trends, CSPTCL is considering approximately 4500 MW unrestricted maximum demand to be met in FY 2017-18 for arriving at short-term open access charges for FY 2018-19. Actual demand observed in FY 2017-18 shall be intimated to the Commission at the end of the financial year. The STOA Charges proposed by CSPTCL for FY 2018-19 are shown in the following Table:

Table 4-28: Proposed STOA Charges for FY 2018-19

Sr. No	Particulars	FY 2018-19
1	ARR approved in Tariff Order dated 30.04.2016 (Rs. Crore)	993.46
2	Less: Surplus with holding cost till FY 2018-19 (Rs. Crore)	25.07
3	Total ARR for FY 2018-19 (Rs. Crore)	968.39
4	Maximum Demand Projected in MW	4500.00
5	Energy Input in MU considering 85% Load Factor	33507.00
6	**STOA Charges in Paisa/kWh**	**28.90**

Commission's View

Regulations 45.1 and 45.2 of the CSERC MYT Regulations, 2015 specify as under:

"45.1 Annual Transmission charges or each year of the control period: The Annual Transmission Charges for each financial year of the control period shall provide for the recovery of the Aggregate Revenue Requirement of the Transmission licensee/STU for the respective financial year of the Control period, reduced by the amount of Non-Tariff Income and from other business, as approved by the Commission:

45.2. The annual Transmission Charges of the Transmission licensee shall be determined by the Commission on the basis of an application for determination of Aggregate Revenue Requirement made by the transmission licensee in accordance with chapter-2 of these Regulations."

As per the CSERC MYT Regulations, 2015, the annual transmission charges (fixed cost) shall be recovered from the users of CSPTCL's system on a monthly basis as per the methodology specified in the CSERC Open Access Regulations. According to the CSERC (Connectivity and Intra-State Open Access) Regulations, 2011, the basis of sharing monthly transmission charge shall be maximum demand in MW served by the CSPTCL's system in the previous financial year.

The maximum demand in the State in FY 2017-18 was 4318 MW and is expected to increase to 4500 MW by FY 2018-19. The energy input to be handled by CSPTCL's system for FY 2018-19 considering the load factor of 70% on maximum demand met is estimated as 27594 MU. Accordingly, the Transmission Charges for Short-term Open Access (STOA) for FY 2018-19 have been determined as shown in the Table below:

Table 4-29:Approved Transmission Charges for FY 2018-19 (Rs. Crore)

SR. NO	PARTICULARS	FY 2018-19
1	ARR approved in MYT Order dated April 30, 2016 (Rs. Crore)	993.46
2	Less: Surplus with holding cost till FY 2018-19 (Rs. Crore)	29.98
3	Total ARR for FY 2018-19 (Rs. Crore)	963.48
4	Maximum Demand Projected in MW	4500.00
5	Energy Input in MU considering 70% Load Factor	27594.00
6	**STOA Charges in Paisa/kWh**	**34.92**

5 PROVISIONAL TRUE-UP FOR CSLDC FOR FY 2016-17

5.1 Background

The Commission issued the MYT Order for the Control Period from FY 2016-17 to FY 2020-21 on April 30, 2016.

Regulation 5.8 (b) of CSERC MYT Regulations, 2015 specifies as under:

"*After first year of the control period and onwards, the yearly petition shall comprise of:*

i. Generation, Transmission and SLDC business – Truing up for preceding year(s).
The STU/Transmission licensee shall also file proposal for determination of transmission charges for the short term open access customers along with the true-up petition.
The SLDC along with the petition for truing-up shall also submit the details of year-wise capital expenditure including additional capital expenditure, sources of financing, operation and maintenance expenditure, etc incurred, duly audited and certified by the auditors. The fees and charges recovered for a year shall be trued-up and considered for determination of fees and charges for the next year, by the commission after prudence check.
Where after the truing up, the fee and charges recovered by SLDC if exceeds/falls short of the amount approved by the commission under these regulations, the excess amount so recovered or short fall to be recovered, as the case may be shall be adjusted while determining the fee and charges for the next year or as decided by the Commission."

Regulation 10.3 of CSERC MYT Regulations, 2015 however specifies as under:

"10.3 In case the audited accounts are not available, the provisional truing up shall be done on the basis of un-audited/provisional account and shall be subject to further final truing up, as soon as the audited accounts is available."

In accordance with the above Regulations, CSLDC filed the present Petition for the Provisional True-up for FY 2016-17. The Provisional True-up for FY 2016-17 for CSLDC has been carried out on the basis of CSERC MYT Regulations, 2015 and available Provisional Accounts. The final Truing up for FY 2016-17 shall be done on the basis of Audited Accounts.

5.2 Annual Charges for SLDC

Regulation 74.1 of CSERC MYT Regulations, 2015 specifies the components of Annual Charges for SLDC as under:

(a) Return on Equity;

(b) Interest on loan capital;

(c) Depreciation;

(d) Operation and Maintenance Expenses;

(e) Interest on Working Capital and;

(f) Contribution to Pension Fund.

5.3 Operation and Maintenance (O&M) expenses

CSLDC's Submission

CSLDC submitted that O&M expenses comprise Employee expenses, A&G expenses and R&M expenses. Separate accounts are not being prepared between CSPTCL and CSLDC and the asset transfer scheme between CSLDC and CSPTCL has not been yet notified. CSLDC has considered the actual O&M expenses for FY 2016-17 based on Provisional Accounts, as shown in the Table below:

Table 5-1: O&M Expenses for FY 2016-17 as submitted by CSLDC (Rs. Crore)

Sr. No	Particulars	FY 2016-17
		Provisional
1	Gross Employee Expenses including interim wage relief amount	7.47
2	Gross A&G Expenses	0.48
3	Gross R&M Expenses	0.68
4	Outsourcing payments against vacant position in SLDC	0.10
5	**Total O&M Expenses**	**8.73**

CSPTCL further submitted that an additional expenditure of Rs. 0.10 Crore on account of payments towards work outsourced to operators against the vacant employee positions in CSLDC has been incurred. This payment is on account of

salaries paid to the operators for work outsourced and has been treated as a separate line item here.

The interim wage relief amount as per data maintained by CSLDC is Rs. 0.25 Crore, which has been considered as part of the employee expenses for FY 2016-17. Further, provision of arrears of Rs. 20.41 Crore, to be paid to employees of CSPTCL and CSLDC on account of wage revision due from April 1, 2014 to March 31, 2017, has been made in provisional accounts for the FY 2016-17. CSLDC submitted that this amount is being paid from FY 2017-18 onwards and requested the Commission to kindly consider the same as per actuals in future years.

Further, CSLDC submitted the reasons for the increase in employee expenses as under:

(a) The increase in number of employees on account of creation of the Backup SLDC at Khedamara, Bhilai, Chhattisgarh

(b) The arrears payable due to wage revision w.e.f. 01.04.2014.

CSLDC requested the Commission to approve Rs. 7.47 Crore as employee expenses for FY 2016-17 including the interim wage relief amount actually paid to the employees based on the combined Provisional Accounts.

Sharing of gain and losses on account of O&M Expenses

CSLDC submitted that as per the CSERC MYT Regulations, 2015 and the subsequent amendment, the Employee expenses for FY 2016-17 have been considered based on actuals and have not been subjected to sharing of gains or losses. CSLDC requested the Commission to approve Rs. 7.47 Crore as employee expenses (including interim wage relief amount) for FY 2016-17. A&G expenses and R&M expenses have been subjected to sharing of gains/losses as per Regulation 47.5 of the CSERC MYT Regulations, 2015.

The A&G expenses and R&M expenses for the base year, i.e., FY 2015-16, have been derived on the basis of the normalized average of the actual net A&G expenses and R&M expenses, respectively, available in the Accounts for the previous five (5) years immediately preceding the base year FY 2015-16. Any other expense of non-recurring nature has been excluded while determining normalized average for the previous five (5) years. The normalization has been done by applying last five-year average increase in Wholesale Price Index (WPI) on year to year basis. The average increase

in WPI for the five years preceding the base year, i.e., from FY 2010-11 to FY 2014-15, is 6.77%.

The actual increase in WPI for FY 2015-16 is -2.49% and for FY 2016-17 it is 3.67%. The same have been considered for projecting the A&G expenses and R&M expenses for FY 2015-16 and FY 2016-17, respectively. The average of the net present value of the A&G expenses and R&M expenses from FY 2010-11 to FY 2014-15 normalised to FY 2014-15 has then been escalated by actual increase in WPI for FY 2015-16, i.e., -2.49% to arrive at the normative A&G expenses and R&M expenses for FY 2015-16. The same have been escalated by increase in WPI for FY 2016-17, i.e., 3.67% to arrive at the normative A&G expenses and R&M expenses for FY 2016-17.

CSLDC computed the normative A&G Expenses of Rs. 1.02 Crore and R&M Expenses of Rs. 1.50 Crore for FY 2016-17.

The actual A&G expenses and R&M expenses are Rs. 0.58 Crore (including expense of Rs. 0.10 Crore on account of outsourcing payments against vacant employee positions) and Rs. 0.68 Crore, respectively, for FY 2016-17. CSLDC submitted that the payment of Rs. 0.10 Crore is on account of wages paid to the operators for work outsourced to them. Since, nature of expenses are similar to employee expenses for regular employees, hence, CSLDC requested the Commission to consider same at par with employee expenses only for the purpose of computation of gain and losses of O&M expenses. The sharing of gain/(loss) for A&G expenses and R&M expenses for FY 2016-17 as submitted by CSLDC is shown in the following Table:

Table 1-2: Sharing of gain/ (loss) on A&G expenses and R&M expenses for FY 2016-17 (Rs. Crore)

Sr. No	Particulars	Normative Expense	Provisional True-up	Gain/ (Loss)
1	A&G expenses	1.02	0.48	0.54
2	R&M expenses	1.50	0.68	0.82
3	Total Gain/(Loss)			1.36
4	CSLDC share (1/2 of Total Gain/(Loss))			0.68

Commission's View

As regards O&M Expenses, Regulation 47.5 of the MYT Regulations, 2015 specifies as under:

*"**47.5 Operation and Maintenance expenses***

Employee Cost

(c) *The employee cost, excluding pension fund contribution and impact of pay revision arrears for the base year i.e. FY 16, shall be derived on the basis of the normalized average of the actual employee expenses excluding pension fund contribution and impact of pay revision arrears available in the accounts for the previous five (5) years immediately preceding the base year FY 16, subject to prudence check by the Commission. Any other expense of nonrecurring nature shall also be excluded while determining normalized average for the previous five (5) years.*

(d) *The normalization shall be done by applying last five year average increase in Consumer Price Index (CPI) on year to year basis. The average of normalized net present value for FY 2010-11 to FY 15, shall then be used to project base year value for FY 16. The base year value so arrived, shall be escalated by the above inflation rate to estimate the employee expense (excluding impact of pension fund contribution and pay revision, if any) for each year of the Control Period.*

At the time of true up, the employee costs shall be considered after taking into account the actual increase in CPI during the year instead of projected inflation for that period.

Provided further that impact of pay revision (including arrears) and pension fund contribution shall be allowed on actual during the true-up as per accounts, subject to prudence check and any other factor considered appropriate by the Commission.

A&G Expenses and R&M Expenses

(e) *The administrative and general expenses and repair and maintenance expenses, for the base year i.e. FY 16, shall be derived on the basis of the normalized average of the actual administrative and general expenses and repair and maintenance expenses, respectively available in the accounts for the previous five (5) years immediately preceding the base year FY 16, subject to prudence check by the Commission. Any expense of non-recurring nature shall be excluded while determining normalized average for the previous five (5) years.*

(f) *The normalization shall be done by applying last five year average increase in Wholesale Price Index (WPI) on year to year basis. The average of normalized net present value for FY 2010-11 to FY 15, shall then be used to project base year value for FY 16. The base year value so arrived, shall be escalated by the above inflation rate to estimate the administrative and general expense and repair and*

maintenance expenses for each year of the Control Period.

At the time of true up, the administrative and general expenses and repair and maintenance expenses shall be considered after taking into account the actual inflation instead of projected inflation for that period.

(g) ***The additional O&M Expenses on account of new transmission lines/ substations commissioned after March 31, 2016 shall be allowed by the Commission subject to prudence check at the time of truing up exercise." (emphasis added)***

In the MYT Order, the Commission determined the O&M Expenses for the Control Period from FY 2016-17 to FY 2020-21 in accordance with the above Regulations.

The above Regulations specify that at the time of truing up, the O&M Expenses shall be considered after taking into account the actual inflation instead of projected inflation for that period. The Regulation does not require the base O&M expenses as approved in the MYT Order to be revised.

Accordingly, the Commission has computed the normative O&M expenses for FY 2016-17 by applying the actual inflation of FY 2016-17 on base O&M expenses for FY 2015-16, as approved in the MYT Order. The Commission has considered the actual inflation of CPI and WPI levels for FY 2016-17 over CPI and WPI levels of FY 2015-16. The Commission has considered escalation factor of 4.12% for employee expenses and 1.73% for R&M expenses and A&G Expenses. Accordingly, the normative O&M Expenses computed for FY 2016-17 is shown in the following Table:

Table 5-3: Normative O&M Expenses for FY 2016-17 as computed by the Commission (Rs. Crore)

Particulars	FY 2015-16	FY 2016-17	
	Base Year Normative Expenses	Approved in MYT Order	Revised Normative Expenses
Employee Expenses	5.67	6.19	5.90
A&G Expenses	0.99	1.16	1.01
R&M Expenses	1.44	1.69	1.47
Grand total	**8.10**	**9.04**	**8.38**

For the purpose of provisional truing up for FY 2016-17, the Commission approves

the normative O&M Expenses. The Commission has undertaken sharing of gains and losses of normative expenses vis-à-vis actual expenses as per CSERC MYT Regulations, 2015.

The Commission has provisionally considered the O&M expenses as per provisional accounts for sharing of gains and losses. Further, the Commission rejects CSLDC's approach of not considering Rs. 0.10 Crore towards wages paid to the outsourced employees as part of A&G expenses for the purpose of computation of gain and loss of A&G expenses. Expenses incurred by CSLDC (or any Licensee) towards outsourcing is always considered under A&G expenses, and cannot be notionally considered under employee expenses, for the purpose of computing the sharing of gains/losses.

As regards the sharing of gains and losses, the following provision has been inserted in Regulation 13.1 by the First Amendment to the CSERC MYT Regulations, 2015 on June 16, 2017:

"Provided further that employee cost shall not be factored in for sharing of gains or losses on account of operations and maintenance expenses, … …"

Accordingly, the Commission approves the Employee Expenses at actuals as per Provisional Accounts for FY 2016-17, and no sharing of gains and losses has been considered for Employee Expenses.

The sharing of gains and losses in A&G and R&M expenses, computed after provisional truing up for FY 2016-17 is shown in the following Table:

Table 5-4: Sharing of Gains and Losses in A&G and R&M expenses as provisionally approved by the Commission (Rs. Crore)

Particulars	Revised normative O&M expenses	Actual based on Provisional Accounts	Gains/ (Losses)	Sharing of Gains/ (Losses) at 50:50	Net Entitlement of O&M Expenses
Employee Expenses	5.90	7.47	-	-	7.47
A&G Expenses	1.01	0.58	0.43	0.21	0.79
R&M Expenses	1.47	0.68	0.79	0.39	1.07
Total O&M expenses	**8.38**	**8.73**	**1.21**	**0.61**	**9.33**

In this Order, the Commission approves the O&M expenses based on provisional Accounts for FY 2016-17. The final approval of O&M Expenses shall be accorded at time of truing up based on audited accounts.

5.4 Contribution to Pension and Gratuity Fund

CSLDC's Submission

CSLDC submitted that the Commission in MYT Order dated April 30, 2016 allowed Contribution to Pension and Gratuity (P&G) fund of Rs. 1.21 Crore for FY 2016-17. CSLDC has considered the same amount as actual contribution to pension and gratuity of Rs. 1.21 Crore for FY 2016-17 and requested the Commission to approve the same.

Commission's View

The Commission provisionally approves the Contribution to Pension and Gratuity Fund as submitted by CSLDC as shown in the following Table:

Table 5-5: Contribution to P&G Fund as approved by the Commission (Rs. Crore)

Sr. No.	Particulars	MYT Order	CSLDC's Submission	Approved for provisional Truing up
1	Contribution to Pension and Gratuity Fund	1.21	1.21	1.21

5.5 Gross fixed Assets and Means of Finance

CSLDC has considered the closing GFA of Rs. 14.39 Crore as approved in the true-up Order for FY 2015-16 as the opening GFA for FY 2016-17. It has considered GFA addition of Rs. 74 Lakh based on the actual capitalisation in FY 2016-17.

As per Regulation 17 of the CSERC MYT Regulations, 2015, the normative debt:equity ratio of 70:30 has been considered for funding of the additional capitalisation for the year. It is noted that the additional capitalisation has not been funded by any grants and hence, the ratio of 70:30 has been considered for normative funding of the additional capitalisation of Rs. 0.74 Crore for provisional true-up of ARR for FY 2016-17.

Commission's View

The Commission has approved the closing GFA for FY 2015-16 as Rs. 14.39 Crore after True-up in the Order dated March 31, 2017. The Commission has accordingly

considered the same amount as Opening GFA for FY 2016-17. The Commission notes that provisional Accounts for FY 2016-17 indicate the capitalisation of Rs. 231.02 Crore during the year. Out of this, the amount of Rs. 0.74 Crore is pertaining to CSLDC. The Commission has considered the capitalisation of Rs. 0.74 Crore for FY 2016-17 as submitted by CSLDC, based on reconciliation with the provisional Accounts.

As regards the funding of capitalisation, the Commission has not considered any grants for FY 2016-17. Further, normative Debt:Equity ratio of 70:30 has been considered as per Regulation 17 of the CSERC MYT Regulations, 2015.

The Commission provisionally approves the GFA and its funding for FY 2016-17 as shown in the following Table:

Table 5-6: Gross Fixed Assets addition and its Funding for FY 2016-17 for CSLDC (Rs. Crore)

Sr. No	Particulars	CSLDC Petition	Approved after provisional True-up
1	GFA Addition in FY 2016-17	0.74	0.74
	Means of Finance		
2	Consumer Contribution	-	-
3	Equity	0.22	0.22
4	Debt	0.52	0.52
5	**Total Capitalisation**	**0.74**	**0.74**

5.6 Depreciation

CSLDC's Submission

CSLDC submitted that its asset base comprises SCADA system, computer terminals, equipment, building, etc. The asset base has been identified from the accounts of CSPTCL by the Asset Segregation Committee and the same has been considered in its computations. As the asset class-wise segregation of the CSLDC's asset base is not available, the weighted average depreciation rate considered for CSPTCL for FY 2016-17 has been considered for CSLDC. The closing GFA of Rs. 14.39 Crore as approved in the true-up Order for FY 2015-16 is considered as the opening GFA for FY 2016-17. Regulation 24.5 of CSERC MYT Regulations, 2015 specifies that till CSLDC is part of CSPTCL, the depreciation shall be calculated as applicable for CSPTCL. Since, CSLDC is not operating as a separate Company, the depreciation as applicable to CSPTCL has been considered.

CSLDC requested the Commission to approve depreciation of Rs. 0.78 Crore for FY 2016-17 after provisional Truing up.

Commission's View

The Commission has approved the depreciation for FY 2016-17 as per the approach adopted in the past Orders. The closing GFA for FY 2015-16 as approved in the true up for FY 2015-16, has been considered as the opening GFA for FY 2016-17. The GFA addition for FY 2016-17 has been considered as approved by the Commission earlier in this Chapter. The Consumer Contribution in GFA addition for FY 2016-17 has been considered as Nil as approved by the Commission in earlier sub-section. The weighted average depreciation rate of 5.25%, computed on the basis of deprecation rates specified in the CSERC MYT Regulations, 2015, has been considered. The depreciation computed by the Commission for FY 2016-17 is shown in the Table below:

Table 5-7: Depreciation for FY 2016-17 for CSLDC as approved by the Commission (Rs. Crore)

Sr. No.	Particulars	MYT Order	CSLDC Petition	Approved after Provisional True-up
1	Opening GFA	16.58	14.39	14.39
2	Add: Additional capitalization during the year	2.65	0.74	0.74
3	GFA at the end of the year	19.23	15.13	15.13
4	Average GFA for the year	17.91	14.76	14.76
5	Depreciation Rate	5.25%	5.25%	5.25%
6	**Depreciation**	**0.94**	**0.78**	**0.78**

5.7 Interest on Loan

CSLDC's Submission

CSLDC submitted that it has calculated Interest and Finance Charges as per Regulation 23 of the CSERC MYT Regulations, 2015. CSLDC is not operating as a separate Company and therefore, the actual loan as applicable to CSPTCL has been considered. CSLDC has considered the approved closing normative loan balance for FY 2015-16 as per the true-up Order, as the opening normative loan balance for FY 2016-17. The debt component of 70% of the GFA addition during FY 2016-17 has been considered as the normative loan addition during the year. The allowable

depreciation for the year has been considered as the normative repayment for the year. The actual weighted average interest rate of 10.95% for CSPTCL has been considered for computation of the interest on loan for FY 2016-17.

CSLDC requested the Commission to approve the Interest and Finance Charges of Rs. 0.46 Crore for FY 2016-17.

Commission's View

The Commission has approved interest on loan capital for FY 2016-17 as per Regulation 23 of the CSERC MYT Regulations, 2015.

The Commission has considered the closing net normative loan balance for FY 2015-16 as approved after True-up, as the opening net normative loan balance for FY 2016-17. The addition of normative loan has been considered based on actual capitalisation, as considered in earlier Section of this Order. The repayment has been considered equal to net depreciation approved by the Commission for FY 2016-17.

For computation of weighted average rate of interest, the Commission has considered the actual loan details and applicable rate of interest for CSPTCL as per the Provisional Accounts, in absence of segregation of actual loan for CSLDC. The Commission has computed the weighted average rate of interest of 10.95%, as per Regulation 23.5 of CSERC MYT Regulations, 2015 based on actual loan portfolio at the beginning of the year.

The interest on loan approved in provisional true up for FY 2016-17 is shown in the Table below:

Table 5-8: Interest on Loan for FY 2016-17 for CSLDC approved by Commission (Rs. Crore)

Sr. No.	Particulars	MYT Order	CSLDC Petition	Approved after Provisional True-up
1	Total Opening Net Loan	5.72	4.34	4.34
2	Repayment during the period	0.94	0.78	0.78
3	Additional Capitalization of Borrowed Loan during the year	1.86	0.52	0.52
4	Total Closing Net Loan	6.63	4.08	4.08
5	Average Loan during the year	6.18	4.21	4.21

Sr. No.	Particulars	MYT Order	CSLDC Petition	Approved after Provisional True-up
6	Weighted Average Interest Rate	12.20%	10.95%	10.95%
7	**Interest Expense for the Period**	**0.75**	**0.46**	**0.46**

5.8 Return on Equity (RoE) and Income Tax

CSLDC's Submission

CSLDC submitted that it has computed Return on Equity (RoE) as per the Regulation 22 of the CSERC MYT Regulations, 2015.

The closing equity balance of FY 2015-16 as approved in the true-up Order has been considered as the opening equity balance for true-up of FY 2016-17. Equity addition during FY 2016-17 has been considered as 30% of the capitalisation during the year. CSLDC has computed RoE as per Regulation 22 of the CSERC MYT Regulations, 2015 using base rate of RoE of 15.50% (without grossing up by MAT rate). Since, CSLDC has not paid any Income Tax during FY 2016-17, no Tax has been considered for the year.

CSLDC requested the Commission to approve RoE of Rs. 0.74 Crore for FY 2016-17 after provisional Truing up.

Commission's View

Regulation 22 of the CSERC MYT Regulations, 2015 specifies that RoE shall be computed by grossing up the base rate with the prevailing MAT rate of the base year for projection purposes. However, at the time of truing up, actual Tax rate applicable shall be considered. The Commission notes that CSLDC has not paid any Income Tax separately, hence, no Income Tax has been considered separately for CSLDC.

For the purpose of the provisional Truing up, the Commission has provisionally approved RoE at rate of 15.50% as per Regulation 22 of the CSERC MYT Regulations, 2015. For computation of RoE, the Commission has considered the closing equity as approved for FY 2015-16 after True-up, as opening equity for FY 2016-17. The equity addition has been considered based on the actual capitalisation as approved in earlier Section of this Order. The Commission provisionally approves the RoE for FY 2016-17 as shown in the following Table:

Table 1-5-9: Return on Equity for FY 2016-17 for CSLDC as approved by Commission (Rs. Crore)

Sr. No.	Particulars	MYT Order	CSLDC Petition	Approved after Provisional True-up
1	Permissible Equity in Opening GFA	5.37	4.68	4.68
2	Addition of permissible equity during the year	0.80	0.22	0.22
3	Permissible Equity in Closing GFA	6.17	4.90	4.90
4	Average Gross Permissible Equity during the year	5.77	4.79	4.79
5	Rate of Return on Equity	15.50%	15.50%	15.50%
6	**Return on Equity**	**0.89**	**0.74**	**0.74**

5.9 Interest on Working Capital (IoWC)

CSLDC's Submission

CSLDC has considered one month of O&M Expenses, maintenance spares at 40% of R&M expenses and receivables equivalent to one month of actual system operation charges and market operation charges for computing the working capital requirement for FY 2016-17. CSLDC has considered the interest rate of 12.80% (SBI Base Rate of 9.30% as on April 1, 2016 plus 350 basis points) for computing the IoWC. CSLDC requested the Commission to approve IoWC of Rs. 0.25 Crore for FY 2016-17.

Commission's View

The Commission has computed IoWC in accordance with Regulation 25 of the CSERC MYT Regulations, 2015. For computation of working capital requirement as per the formula specified in the CSERC MYT Regulations, 2015, the Commission has considered the revised normative value of O&M expenses for FY 2016-17 as approved in earlier Section of this Order. Further, the receivables have been considered based on the actual revenue of CSLDC during FY 2016-17. The interest rate of 12.80% has been considered as per Regulation 25.4 of the MYT Regulations, 2015. The normative IoWC approved by the Commission in the provisional true-up for FY 2016-17 is shown in the Table below:

Table 5-10: IoWC approved for FY 2016-17 for CSLDC by the Commission (Rs. Crore)

Sr. No.	Particulars	MYT Order	CSLDC Petition	Approved after Provisional True-up
1	O&M for One Month	0.78	0.73	0.70
2	Maintenance Spares @ 40% of R&M Expenses	0.67	0.27	0.60
3	Receivables @ 1 Month of Fixed Cost	1.03	0.97	1.05
4	**Total Working Capital Requirement**	**2.48**	**1.97**	**2.35**
5	Less: Security Deposit from Transmission Users	-	-	-
6	**Net Working Capital Requirement**	**2.48**	**1.97**	**2.35**
7	Rate of Interest on Working Capital	13.20%	12.80%	12.80%
8	**Net Interest on Working Capital**	**0.33**	**0.25**	**0.30**

5.10 Non-Tariff Income

CSLDC's Submission

CSLDC submitted the actual Non-Tariff income (NTI) of Rs. 1.18 Crore for FY 2016-17. CSLDC requested the Commission to approve NTI of Rs. 1.18 Crore for the provisional true-up of ARR for FY 2016-17.

Commission's View

For the purpose of provisional truing up for FY 2016-17, the Commission has considered the Non-Tariff Income for CSLDC as per Segmental notes of provisional Accounts submitted by CSPTCL and CSLDC. Accordingly, the Commission considers Non-Tariff income of Rs. 1.12 Crore for CSLDC for FY 2016-17. The Non-Tariff Income provisionally approved for FY 2016-17 is shown in the Table below:

Table 5-11: Non-Tariff Income approved by the Commission for FY 2016-17 (Rs. Crore)

Sr. No	Particulars	MYT Order	CSLDC Petition	Approved after Provisional True-up
1	Non-Tariff Income	1.05	1.18	1.12

5.11 Aggregate Revenue Requirement (CSLDC Annual Charges)

Based on the above, the ARR approved for CSLDC for provisional truing-up for FY 2016-17 is shown in the Table below:

Table 5-12: ARR for FY 2016-17 for CSLDC approved by the Commission (Rs. Crore)

Sr. No.	Particulars	MYT Order	CSLDC Petition	Approved after Provisional true-up
1	Employee Expenses	6.19	7.47	7.47
2	A&G Expenses	1.16	0.58	0.58
3	R&M Expenses	1.69	0.68	0.68
4	Provision for Interim Wage Relief Impact	0.31	-	-
5	Sharing of Gain/(Loss) for O&M Efficiency	0.00	0.68	0.61
6	Contribution to Pension & Gratuity Fund	1.21	1.21	1.21
7	Depreciation	0.94	0.78	0.78
8	Interest on Loan	0.75	0.46	0.46
9	Interest on Working Capital	0.33	0.25	0.30
10	Return on Equity	0.89	0.74	0.74
11	**Gross Aggregate Revenue Requirement**	**13.48**	**12.85**	**12.82**
12	Less: Non-Tariff Income	1.05	1.18	1.12
13	**Net Aggregate Revenue Requirement**	**12.41**	**11.67**	**11.70**

5.12 Revenue from CSLDC Charges

CSLDC's Submission

CSLDC submitted the revenue from CSLDC charges as Rs. 12.41 Crore for FY 2016-17. These SOC/MOC charges are actually realised against the bill to the LTOA/MTOA customers during FY 2016-17 after set-off of the NTI receipts. CSLDC requested the Commission to approve Revenue from SLDC Charges of Rs.12.41 Crore for FY 2016-17.

Commission's View

CSLDC has considered the revenue from CSLDC Charges as Rs. 12.41 Crore. However, the same has been mentioned as Rs. 12.64 Crore in Note 8.1 of the Provisional Accounts. CSLDC submitted that the revenue shown in the Provisional

Accounts includes some NTI, and the reconciliation with accounts is going on. In view of the above, the Commission for the purpose of provisional truing up has considered the revenue of Rs. 12.64 Crore for FY 2016-17. The revenue based on Audited Accounts shall be considered at the time of final truing up.

5.13 Revenue Gap/(Surplus) for CSLDC

The Commission is not considering the previous gap of Rs. 0.54 Crore, as it is not clear from the provisional accounts submitted by CSLDC, whether it is included in the revenue or not. The same will be accrued at the time of final-true-up. In view of the above, the Commission has computed the Revenue Gap/(Surplus) for CSLDC for FY 2016-17 after provisional Truing up as shown in the following Table:

Table 5-13: Revenue Gap/(Surplus) for FY 2016-17 for CSLDC as approved by the Commission (Rs. Crore)

Sr. No	Particulars	CSLDC Petition	Approved after Provisional Truing up
1	Aggregate Revenue Requirement	11.67	11.70
2	Less: Revenue from SLDC Charges	12.41	12.64
3	**Standalone Revenue Gap/(Surplus)**	**(0.74)**	**(0.94)**

Hence, the Commission has approved the net Surplus of Rs. 0.94 Crore in the provisional true-up for FY 2016-17 as against the net surplus of Rs. 0.74 Crore claimed by CSLDC.

After applying the carrying cost for two years, i.e., from mid-point of FY 2016-17 to mid-point of FY 2018-19 on this Revenue Surplus, the total amount that is required to be factored in the revenue requirement of CSPDCL for FY 2018-19 works out to Rs. 1.26 crore.

5.14 Interlocutory Application No. __ of 2018

Background

CSLDC filed Review Petition No. 22 of 2017 (M) before the Commission. Meanwhile, CSLDC submitted the new Tariff Petition for FY 2018-19. As the matter under Review Petition was also related to tariff, the Commission was of view that the matter to be heard and decided with the new Tariff Petition for FY 2018-19 and accordingly, the Commission in its Order dated December 14, 2017 directed as under:

"Vide order sheet dated 08.12.2017, the Petitioner was directed to submit the gist of the Petition within a week's time. Since, SLDC has filed tariff Petition for the year FY 2018-19 on 12.12.2017, the matter may be heard with objection/suggestion on new tariff petition."

In view of the above, CSLDC filed an Interlocutory Application with the following prayers:

"

(a) *To review Para 5.3, 5.4 and 5.5 passed in Tariff Order for FY 2017-18 and make appropriate changes by removing revenue surplus for FY 2013-14 of Rs. 1.92 Crore;*
(b) *To review Para 5.6 passed in Tariff Order for FY 2017-18 and strike down the order of payment/adjustment of carrying cost of Rs. 35 lakh;*
(c) *To consider the effect of removing revenue surplus for FY 2013-14 of Rs. 1.92 Crore while carrying out the provisional True-up of ARR for FY 2016-17;*
(d) *To kindly consider all prior submissions made on the subject matter in Review Petition No. 22 of 2017 (M) while carrying out proceedings of the Petition;*
(e) *Pass any other order as this Hon'ble Commission may deem fit in the interest of justice"*

The Commission has analysed the submissions made by CSLDC. The Commission's views on the issues raised by CSLDC are discussed below:

Issue No. 1 – Accounting of Revenue Surplus of Rs. 1.92 Crore

CSLDC's Submission

CSLDC submitted that it has duly adjusted surplus amount of Rs. 1.92 Crore after setting-off the Non-Tariff Income (NTI) receipts and adjusted the refund of the excess receipts in compliance of Tariff Order for FY 2015-16. The same has also been submitted before the Commission vide Para 5.32 of the Petition No. 67 of 2016 (T), in the matter of filing of the Petition for approval of CSLDC's provisional truing up for FY 2015-16. CSLDC also submitted the copies of bills wherein it has adjusted and passed on surplus through the SOC/MOC charges bills in six equal instalments of Rs. 32 lakh each from October 2015 to February 2016.

CSLDC further submitted that the Commission has considered the revenue of Rs. 14.28 Crore against Rs. 12.26 Crore submitted by CSLDC, after taking into account revenue surplus of Rs. 1.92 Crore for FY 2013-14 that has been passed through to CSPDCL in FY 2015-16. The Commission has erred in acknowledging the fact that

said surplus has already been accounted for billing to CSPDCL in FY 2015-16. CSLDC added that the Commission has changed the approach from previous Orders, where in the impact of surplus used to be considered by simply reducing the billing for prospective tariff year and then actual revenue is considered while undertaking True-up.

Commission's View

The Commission notes the submission of CSLDC. The Commission has undertaken the truing up for FY 2015-16 for CSLDC in the Tariff Order for FY 2017-18. While undertaking the Truing up for FY 2015-16, the Commission observed that CSLDC has passed through Revenue Surplus for FY 2013-14 of Rs. 1.92 Crore during FY 2015-16 though bills of SOC/MOC Charges. Hence, the revenue reflected in the Audited Accounts of Rs. 12.26 Crore is only after the adjustment of Revenue Surplus of Rs. 1.92 Crore.

Further, the Commission has approved Net ARR of Rs. 11.72 Crore for FY 2015-16 after truing up. This Net ARR, which is the standalone ARR, did not include any expenses entry towards past Revenue Gap/(Surplus). In view of this, while undertaking the truing up for FY 2015-16, the Commission has correctly considered the standalone revenue of Rs. 14.18 Crore, which is without any adjustment of past Revenue Surplus of Rs. 1.92 Crore. Accordingly, the Commission has approved Revenue Surplus of Rs. 2.45 Crore after truing up for FY 2015-16.

The Commission is of the view that the approach adopted in the Tariff Order for FY 2017-18 is correct and does not contain any error. The Standalone ARR and standalone Revenue have been considered for undertaking the truing up for FY 2015-16. Hence, the Commission denies the contentions of CSLDC and rejects the prayers of CSLDC.

Issue No. 2 – Carrying cost for DSM Charges

CSLDC's Submission

CSLDC submitted that the Commission in the Tariff Order for FY 2017-18 directed CSLDC to make payment of carrying cost for FY 2015-16 and FY 2016-17 to CSPGCL in relation to non-issuance of revised Deviation Charges bills for CSPGCL. Further, the Commission stated that the carrying cost liability of Rs. 35 Lakh shall be adjusted by CSPGCL while paying the bills raised by CSLDC towards SOC and MOC Charges for CSPGCL for the months of April 2017 and May 2017.

CSPDCL submitted that the entire power transaction is taking place between CSPDCL and CSPGCL. CSLDC was only required to prepare Statement of Charges for deviations including additional charges for deviation on power transaction between CSPGCL and CSPDCL on monthly basis. CSLDC was not involved in any financial transactions except for levying appropriate fees and charges for system and grid operations.

CSLDC submitted that it has experienced various difficulties in the application of the Commission's Order in Petition No. 67 of 2016 (T), for the following reasons:

(a) There were two inadvertent errors in the CERC (DSM and related matters) Regulations, 2014.

(b) First error in Part A of Annexure II favoured Generators, however, second error in Part C of Annexure II was against Generators. However, only the first error was addressed and the second error still remains unresolved at the Commission's end.

(c) CSLDC filed an appeal before Hon'ble APTEL and thereafter to Hon'ble Supreme Court, where in Hon'ble Supreme Court has kept law points open for discussion. Substantial questions of law are present, which have not been discussed before Hon'ble APTEL and the Commission.

(d) CSLDC is not involved in any financial transaction and has acted strictly as per CERC (DSM and other matters) Regulations, 2014. CERC also did not penalise CSLDC, as it strictly adhered to the Regulation in case of Monnet Ispat and Energy Ltd. vs. CSLDC, Petition No. 563/MP/2014.

(e) CSPDCL promised to take Open Access so DSM bill was issued but till date CSPDCL has not availed Open Access, so DSM bill revision is not possible as DSM charges are to be levied on Open Access consumers.

(f) There is no Regulation specifying that interest liability on DSM charges shall be adjusted with MOC/SOC Charges.

In view of the above, CSLDC requested the Commission to review Para 5.6 of Tariff Order for FY 2017-18 and cancel the order of payment/adjustment of carrying cost of Rs. 35 lakh.

Commission's View

The Commission in para 5.6 of Tariff Order for FY 2017-18 has addressed this issue in detail and after taking cognizance of submissions made by the Parties. The

Commission has given the detailed reason for levy of carrying cost on CSLDC as under:

> *"**CSLDC being a system operator has to act according to the provisions of the EA 2003 and comply with the Orders of the Commission and the Hon'ble APTEL. Even though there was no stay on the operation of the Order of the Commission dated May 7, 2015, CSLDC did not comply with the Order.** It is noted that even after the Judgment rendered by the Hon'ble APTEL, CSLDC has chosen not to comply with the Judgment. The Commission is mandated to ensure compliance of its Orders and the Order passed by superior Courts. **Based on the submission of CSPGCL, the Commission has decided to proceed with the truing up of DSM bills. For the period October to December 2014, the liability occurs on CSPDCL to pay CSPGCL 50% of total amount, i.e., 50% of Rs. 2.90 Crore.***
>
> *It can be understood that there could have been an issue of interpretation of CERC (Deviation Settlement Mechanism and related matters) Regulations, 2014 by CSLDC. **However, once the Order was issued by the Commission on May 7, 2015, the issue was clarified and CSLDC was bound to comply with the Orders of the Commission and issue the correct Deviation Charges bills for CSPGCL. Due to non-compliance of the Order of the Commission, a liability of carrying cost has arisen on CSPDCL. It does not appear proper that the burden of this carrying cost, due to non-compliance of CSLDC be passed onto consumers of the State.** The Order of the Commission in Petition No. 6 of 2015 (D) was passed on May 7, 2015, and if Order would have been implemented timely by CSLDC, the carrying cost for further year would not have arisen. Taking a judicious view and understanding the fact that there would have been an issue of interpretation by CSLDC and Order of the Commission was passed in FY 2015-16, the carrying cost for first quarter of FY 2015-16, i.e., April to June 2015 needs to be borne by CSPDCL. The carrying cost for remaining part of FY 2015-16 and for FY 2016-17, which has arisen due to non-compliance of CSLDC needs to be borne by CSLDC.*
>
> *The carrying cost liability on CSLDC is Rs. 35 Lakh. Such amount shall be adjusted by CSPGCL while paying the bills raised by CSLDC towards the SOC and MOC charges for CSPGCL for the months of April and May 2017. However, CSPGCL would claim the amount from CSPDCL towards CSLDC charges as raised in the monthly bills of April and May 2017." (emphasis added)*

On the above issue, the Commission would like to highlight the facts as under:

Regarding the interpretation of the CERC (DSM and other matters) Regulations, 2014 and resolving the dispute regarding methodology for computation of charges and additional charges for deviating from the scheduled injection and drawal of power, a

Petition was filed before the Commission by M/s. Arasmeta Captive Power Company Ltd. in Petition No. 6 of 2015(D). The Commission issued the Order in this regard on May 7, 2015. Against this Order of the Commission, CSLDC filed an Appeal before the Hon'ble APTEL, even though it was not aggrieved Party. It is noted that CSLDC in the said Appeal before the Hon'ble APTEL submitted that this Commission has no jurisdiction regarding the interpretation of CERC Regulations.

The Hon'ble APTEL vide Judgment dated December 5, 2016 upheld the decision of the Commission. Aggrieved by the Hon'ble APTEL Judgment, CSLDC filed an Appeal before Hon'ble Supreme Court. It is noted that Hon'ble Supreme Court did not stay the Judgment of Hon'ble APTEL. Despite this, CSLDC chose not to comply with the Order of the Commission and Hon'ble APTEL. Moreover, Hon'ble Supreme Court has subsequently quashed the appeal of CSLDC.

It is pertinent to note that the Commission is mandated to ensure compliance of its Orders and the Order passed by superior Courts. The Commission has decided to proceed with truing of DSM Bills in the Tariff Order for FY 2017-18, while undertaking the truing up for FY 2015-16. DSM bills were pertaining to FY 2014-15. The Commission noted that for such exercise, DSM bills were sought from CSLDC and CSPGCL. However, CSLDC had shown loath approach and chose not to submit the bills to the Commission. With no option left, the Commission proceeded to true up the DSM bills based on the submission of CSPGCL.

Further, a new fact has come to light before the Commission during this Review Petition. CSLDC has made the reference of similar Case of Monnet Ispat and Energy Ltd. vs CSLDC, Petition No. 563/MP/2014, before CERC. The Commission notes that during the proceedings before this Commission, CSLDC had never disclosed the fact that similar Petition was going on before CERC, and that CSLDC was party to the same. CSLDC chose to suppress the facts. It is very interesting to note that CSLDC in the same Petition before CERC, made the submission that CERC has no jurisdiction on the same. This reflects the conflicting stand of CSLDC before Hon'ble APTEL and CERC. CSLDC had attempted to mislead the Hon'ble APTEL regarding this matter. Further, it is also noted that CSLDC did not inform the Commission regarding the Order of CERC in the Monnet Ispat Petition, which was issued before the finalisation of truing of DSM bills by the Commission in tariff order for FY 2017-18. However, CSLDC is now making the submission on the same. From the proceedings and submissions of CSLDC, it is observed that CSLDC has taken conflicting stands before the Hon'ble APTEL, CERC and this Commission. It has

suppressed the facts and misled during the proceedings. It also appears that CSLDC have no faith in the judicial system and has not complied with the Order of the Commission and Hon'ble APTEL.

The Order of the Commission in Petition No. 6 of 2015 (D) was passed on May 7, 2015, and if Order would have been implemented in a timely manner by CSLDC, the carrying cost for further years would not have arisen. Hon'ble APTEL in its Judgment in O.P. No. 1 of 2011 has settled the principles and directed to allow the carrying cost on the past Revenue Gaps. Hence, delay in the process has an effect of additional burden of carrying cost on consumers. The delay by CSLDC in implementation of Order of the Commission led to the burden of additional carrying cost and the same should not be borne by the consumers of the State. The Commission while computing the carrying cost in FY 2017-18 has taken very considerate view wherein the carrying cost for first quarter of FY 2015-16, i.e., April to June 2015, was levied on CSPDCL and for remaining part of FY 2015-16 and for FY 2016-17, was levied on CSLDC. The Commission notes that CSLDC has cited that CERC in its Order on Monnet Petition had not levied any interest in similar case. It is pertinent to mention that the approach adopted by CERC need not be adopted by this Commission, while deciding the similar matter, considering the facts and grounds of the case. Further, the Commission has not levied any interest cost on CSLDC. If the interest cost is levied, it would be more than the amount approved. The Commission has considered the carrying cost only for the period of FY 2015-16 and for FY 2016-17, which has arisen due to non-compliance of CSLDC.

The Commission is of the view that it has already taken the appropriate decision in this matter, considering the facts and grounds of the case. No further review on the same is required. The Commission does not find any ground for review of this matter and rejects the prayer of CSLDC in this matter.

6 PROVISIONAL TRUE-UP FOR CSPDCL FOR FY 2016-17

6.1 Background

CSPDCL, in accordance with MYT Regulations, 2015, filed a Petition for provisional Truing up for FY 2016-17, based on provisional annual accounts for FY 2016-17.

Regulation 10.3 of the CSERC MYT Regulations, 2015 specifies as under:

> *"10.3. In case the audited accounts are not available, the provisional truing up shall be done on the basis of un-audited/ provisional account and shall be subject to further final truing up, as soon as the audited accounts is available."*

In accordance with the above Regulation, the Commission has undertaken provisional Truing up for FY 2016-17 based on unaudited/provisional Accounts submitted by CSPDCL. The final Truing up for FY 2016-17 based on Audited Accounts shall be undertaken in the next Tariff Petition, provided that CSPDCL files the True-up Petition for FY 2016-17 based on audited accounts.

In this Chapter, the Commission has analysed all the elements of actual expenditure and revenue of CSPDCL for FY 2016-17 and undertaken the provisional truing-up of expenses and revenue in accordance with Regulation 10 of the MYT Regulations, 2015. The Commission has approved the sharing of gains and losses on account of controllable factors between CSPDCL and consumers, in accordance with Regulation 13 of the CSERC MYT Regulations, 2015.

6.2 Energy Sales

CSPDCL's Submission

CSPDCL submitted that it had 47,40,542 Nos. of consumers at LV level and 2,613 Nos. at HV and EHV level during FY 2016-17. The Commission in MYT Order had merged HV and EHV categories into supply at HV voltage level effective from April 1, 2016. CSPDCL submitted that the connected load is 5,180.33 MW and 2,694.35 MW at LV and EHV&HV level, respectively, during FY 2016-17. The provisional category-wise sale of power for FY 2016-17 have been recorded at 19,162.57 MU.

Commission's View

The category-wise energy sales submitted by CSPDCL for FY 2016-17 have been scrutinized with the actual billing data submitted by CSPDCL. The Commission sought actual category-wise sales in kWh as well as kVAh for all HV categories.

Also, the details of slab-wise consumption within domestic categories was sought for FY 2016-17.

After analysing the submission of CSPDCL, it is observed that Agriculture Metered Category has recorded a load factor of 43%, which is very high considering the nature of usage of this sector. Similarly, it has been observed that 68% of the billing to agriculture consumers was done on the basis of assessment, which also includes defective meters. The Commission sought the justification for billing based on assessment for such a huge quantum, to which CSPDCL has not responded.

As regards the sales and average energy charges for agricultural category during FY 2016-17, CSPDCL submitted the following details:

Table 6-1: Sales and Energy Charge for Agriculture Consumers for FY 2016-17 as submitted by CSPDCL

Consumer Category	Nos. of Consumer (Nos.)	Units Sold (MU)	Energy Charge Billed (Rs. Crore)	Average Energy Charge (Rs. /kWh)
A-Metered KJJY	268744	2,534.71	1,029.57	4.06
B-Flat rate KJJY	101956	1,151.16	242.33	2.11
General/Other Pump Consumer	14595	67.82	27.98	4.13
Total	**385295**	**3,753.69**	**1,299.88**	**3.46**

From the above Table, it is observed that the Average Energy Charge realized is Rs.3.46/kWh against approved Energy Charge of Rs.4.10/kWh for LV-3 Agriculture Metered category. This difference of 64 Paisa/kWh translates into a lower realisation of Rs. 240.24 Crore. In other words, had CSPDCL billed Agriculture-Metered category at Rs.4.10/kWh as approved for FY 2016-17 in the MYT Order, the energy charge realization would have been Rs. 1539.01 Crore against the actual energy charge realization of Rs. 1299.88 Crore. The Commission has hence, considered this amount of Rs. 240.24 Crore as additional revenue.

Further, Clause 11.1 of the MYT Regulations, 2015 specifies sales mix and quantum of sales as an uncontrollable item. The consumer category-wise sales for FY 2016-17 estimated in MYT Order, actuals submitted by CSPDCL and approved in the provisional true up are shown in the Table below:

Table 6-2: Energy Sales approved by the Commission for FY 2016-17 (MU)

Consumer Category	MYT Order	CSPDCL Petition	Approved after Provisional True-up
LV Categories (A)	**11,226.64**	**10,797.03**	**10,797.02**
Domestic Including BPL Consumers	5,336.04	4,722.00	4,722.00
Non-Domestic (Normal Tariff)	891.93	828.27	828.27
Non-Domestic (Demand Based)	33.74	33.97	33.97
Agriculture Metered	3,579.83	3,753.69	3,753.69
Agriculture allied	16.87	17.54	17.54
LT Industry	489.91	518.04	518.04
Public Utilities	287.36	316.23	316.23
IT Industry	-	-	-
Temporary	590.96	607.29	607.29
HV Categories (B)	**8,604.71**	**8,365.49**	**8,365.49**
Railway Traction	899.74	902.80	902.80
Mines (Coal & Others)	552.40	625.20	625.20
Other Industry & General Purpose Non-Industrial	2,514.32	2,207.77	2,207.77
Steel Industries	4,222.39	4,102.53	4,102.53
Low load factor Industries	72.55	105.04	105.04
PWW, Irrigation & Agriculture allied activities	66.88	113.26	113.26
Residential Purpose	239.92	183.68	183.68
Start-up Power Tariff	35.35	119.42	119.42
Industries related to manufacturing of equipment for power generation from RE sources	1.16	2.05	2.05
IT Industries	-	-	-
Temporary	-	3.74	3.74
Grand Total (A+B)	**19,831.35**	**19,162.52**	**19,162.51**

6.3 Distribution Loss and Energy Balance

CSPDCL's Submission

CSPDCL submitted that the Energy losses for 33 kV and below system has been computed based on Regulation 71.1 and 71.2 of the MYT Regulations, 2015 as shown below:

> *71.1 "The energy loss for 33 kV and below voltage level, shall be evaluated taking into consideration the clause 4.2.5 and 8.4.3 of the State Grid Code 2011. The difference between the energy injected at 33 kV voltage level and the sum of energy sold to all consumers (retail and open access), at voltage level 33 kV and below shall be the energy loss for the 33 kV and below system. The same shall be considered for gain/loss at the time of true up.*
>
> *71.2. Energy sold shall be the sum of the metered sales and assessed unmetered sales, if any, based on prudence check by the Commission."*

In view of the above said provisions, CSPDCL submitted the Distribution Loss and Energy Balance for FY 2016-17 as shown in the following Table:

Table 6-3: Energy Balance for FY 2016-17 as submitted by CSPDCL (MU)

Sr. No	Particulars	Formula	Provisional True-up
1	LV Sales	A	10,797.02
2	HV Sales	B	5,710.72
3	Total Below EHV Level	C=A+B	16,507.74
4	Distribution Loss below 33 kV (in %)	D	20.92%
5	Distribution Loss below 33 kV (in MU)	E	4,367.36
6	Gross Energy requirement at 33 kV Level	F=C+E	20,875.10
7	*Less:* Direct Input to distribution at 33 kV Level	G	257.15
8	Net Energy Input required at Distribution Periphery at 33 kV Level	H=F-G	20,617.95
9	Sales to EHV consumers	I	2,654.77
10	Net energy requirement at Distribution periphery	J=H+I	23,272.72
11	**Distribution loss including EHV Sales**	**K**	**18.56%**

Incentive for over-achievement of distribution loss

CSPDCL submitted that MYT Regulations 2015 mandates the monitoring of energy losses of 33 kV and below system, where is it is specified that:

> *"71.3. Energy Loss trajectory for 33 KV and below system for State utility for each year of the control period shall be as under*
>
> *FY 2016-17 - 22.0%*
>
> *FY 2017-18 - 21.0%*
>
> *FY 2018-19 - 20.0%*
>
> *FY 2019-20 - 19.0%*
>
> *FY 2020-21 - 18.0%*
>
> *For other distribution licensees, the trajectory shall be given in the respective tariff order.*

However, in the 1st Amendment to the MYT Regulations notified on 16 June, 2017, the following proviso was added in Clause 71.3:

> *Provided that if the State utility enters into any agreement with Government of India and/or Chhattisgarh Government and energy loss trajectory committed in this agreement is contrary to that as specified in this Regulations, the energy loss trajectory agreed under the agreement shall prevail over the energy loss specified in this Regulations. "*

CSPDCL submitted that it has signed a tri-partite Memorandum of Understanding (MoU) on January 25, 2016 with Ministry of Power, Government of India and Government of Chhattisgarh under UDAY, to achieve financial turnaround. Under settled principles, MoU cannot be recognized or accepted as an Agreement. Hence, terms and conditions/undertakings of UDAY stands away from the scope of First Amendment to the MYT Regulations 2015. Accordingly, targets specified under UDAY have not been considered for computation of incentives/penalties for distribution losses.

CSPDCL added that under the terms of UDAY:

(a) AT&C loss targets for a particular year are not fixed but are flexible in nature.

(b) AT&C loss targets mentioned are for complete distribution system (HV and LV) and separate targets are not specified for 33 kV and below system.

(c) There is no separate mention or commitment of any trajectory specifically for Distribution Losses for 33 kV and below network.

CSPDCL submitted that even the AT&C losses trajectory stipulated in the UDAY MoU is on 'best effort' basis and is dependent on counter obligations/commitments from Government of India (GoI) and Government of Chhattisgarh (GoCG) in terms of funding and other support. CSPDCL has no control over the actions of GoI and CoCG in this regard, and there is no legal binding on the Parties towards the commitments agreed on. In view of this, it is not prudent to link the trajectory of Energy Loss for 33 kV and below system with such MoUs.

CSPDCL further submitted that these commitments were based on certain time-bound capital investments under various heads. However, a substantial portion of capital expenditure proposed by CSPDCL has been disallowed by the Commission. The Commission in Order dated November 28, 2017 in the Petition No. 06 of 2017 (M), has held as under:

> *"……However, the Commission will give a fresh opportunity to the petitioner to explain the technical and commercial significance of the full scope of the proposal under this head with associated economic benefit and to justify the estimated cost as well as other factors involved in the schemes and measures."*

In absence of requisite investment, it is practically difficult to meet the AT&C Losses stipulated in the UDAY MoU.

CSPDCL submitted that it has over-achieved the loss levels (33 kV and below system) as compared to target specified in the MYT Regulations, 2015. Hence, CSPDCL is eligible to share a part of the financial gain derived from achieving higher loss reduction in accordance with Regulation 13.1 of the MYT Regulations, 2015. Accordingly, CSPDCL has claimed the incentive for over-achievement of Distribution Loss for FY 2016-17, as shown in the following Table:

Table 6-4: Incentive for over-achievement of Distribution Loss for FY 2016-17

Particulars	Provisional True-up
Distribution Losses (%) below 33 kV Level	20.92%
Targeted Distribution Losses	22.00%
Over-achievement	**1.08%**
Total Power Purchase Cost (Rs. crore)	9,846.92
Average Power Purchase Cost at Distribution Periphery (Incl. EHV) (Rs/kWh)	4.18
Over-achievement amount (Rs. crore)	106.21
Over-achievement to be retained by CSPDCL (Rs. crore)	**35.40**

Commission's View

The Commission has considered the Energy Balance based on the actual inter-State transmission losses, normative intra-State transmission losses, actual energy sales, and actual quantum of power procured during FY 2016-17.

Further, the Commission sought details of actual Circle-wise Distribution loss for FY 2016-17. It is observed that five (5) circles, viz., Bilaspur, Janjgir, Korba, Ambikapur, and Baikunthpur have distribution loss more than 30%, however, these circles contribute only 20% of energy sales. Further, it is observed that eight (8) circles out of 18 circles are having distribution loss lower than the average distribution loss of 20.92%, and these circles contribute 58% of energy sales.

The approved Distribution Loss and Energy Balance after provisional true-up for FY 2016-17 is shown in the Table below:

Table 6-5: Approved Energy Balance and Distribution loss for FY 2016-17

Particulars	Legend	MYT Order	CSPDCL Petition	Approved after Provisional true-up
Energy Requirement				
LV Sales (MU)	A	11,227	10,797	10,797
HV Sales (MU)	B	5,871	5,711	5,830
Total Sales below EHV Level (MU)	C=A+B	17,098	16,508	16,627
Energy delivered at 33 kV	D	20,447	20,618	20,618
Energy injected by CPP, IPP at 33 kV	E	1,474	257	257
Total Energy injected at 33 kV	F=D+E	21,921	20,875	20,875
Energy loss below 33 kV (MU)	G=(F-C)	4,823	4,367	4,248
Energy Loss below 33 kV (%)	**H=G/F**	**22.00%**	**20.92%**	**20.35%**
Sales to EHV consumers (MU)	I	2,733	2,655	2,535
Total Energy Sales including EHV Sales (MU)	J=C+I	19,831	19,163	19,162
Energy injected for Retail Sale inclusive of EHV sales (MU)	K=F+I	24,654	25,530	23,410
Energy Loss including EHV Sales (%)	**L=(K-J)/K**	**19.56%**	**18.56%**	**18.15%**

As per the First Amendment to the MYT Regulations, 2015 notified on June 16, 2017, the following proviso was added in Regulation 71.3:

> *"Provided that if the State utility enters into any agreement with Government of India and/or Chhattisgarh Government and energy loss trajectory committed in this agreement is contrary to that as specified in this Regulations, the energy loss trajectory agreed under the agreement shall prevail over the energy loss specified in this Regulations."*

CSPDCL has submitted that the tripartite MoU signed between the GoI, GoCG, and CSPDCL should not be considered as an Agreement and hence, cannot supersede the Distribution loss targets specified in MYT Regulations, 2015.

The arrangements made through UDAY scheme are intended to turn-around the financial health of the Distribution companies, which were sitting over huge debt and the burden of which is ultimately borne by end consumers. The Commission is of the view that the MoU is an Agreement, wherein the Parties have negotiated the key terms of a proposed relationship to enter into a written agreement, with the intention of recording their Agreement in a more formal way in the future. In this case, CSPDCL entered voluntarily into the MoU and has already reaped the benefit in the past, wherein an amount of Rs.870.12 Crore equal to 50% of the total debt of CSPDCL as on 30th September 2015, has already been converted into Grant by GoCG during FY 2015-16. It shows that the Parties have formally finalised all the respective obligations/commitments as prescribed in the MoU. In such cases, even if no formal Agreement is ever signed, and the Parties have called it as MoU, the Parties are bound by the arrangement made under it.

It can be said that the enforceability and binding nature of such MoU depends on the intention of the Parties as seen from the terms of the Agreement.

In Jyoti Brothers v/s Shree Durga Mining Co. [AIR 1956 Cal. 280], the Calcutta High Court laid down that –

> *'……a contract to enter into a contract is not considered to be a valid contract in law at all. However, the same is not conclusive. The court will rely upon the degree of importance of such understanding to the parties and to the fact that whether any of them has acted in reliance on such Understanding.'*

Similarly, in the case of M/s. Nanak Builders and Investors Pvt. Ltd. v/s Vinod Kumar Alag [AIR 1991 Del 315], the Delhi High Court held that –

> *'…. where the essential substantial terms have been agreed upon and reduced into writing, and the agreement so entered into does not mention that another formal agreement will be executed, the Court*

would not consider the agreement as an incomplete agreement. It was further stated by the Court that the mere heading or title of the document would not decide its legality. The legality will depend on the nature and contents of the agreement.'

In the present MoU under UDAY, there is no reference that another formal Agreement will be executed, hence, the above Judgment is squarely applicable in the present case, and the MoU amounts to a complete Agreement between the Parties.

Further, in Appeal No. 89 of 2012 in the matter of Raigarh Ispat Udyog Sangh vs. Jindal Steel and Power Limited (JSPL), the Hon'ble APTEL in para 22 has held that JSPL is required to supply power to Distribution Licensee from its own captive generating plant in accordance with the MoU on the basis of which Distribution Licence was sought by JSPL.

From the above legal position of MoU, it is very clear that in the present case, the content of the MoU entered between CSPDCL, GoI and GoCG clearly demarcates the obligations/commitment for the respective Parties and the Parties have acted as per the MoU. Hence, the Commission in this Order and for subsequent years would consider Distribution Loss targets stipulated in the tripartite MoU under UDAY scheme.

The distribution loss target, inclusive of EHV sales, stipulated under the UDAY scheme for FY 2016-17 works out to 19.22%. The actual distribution loss including EHV sales achieved by CSPDCL during FY 2016-17 works out to 18.15%.

The MYT Regulations, 2015 provide for gain/loss to be allowed at the time of true-up based on the difference between the actual and target Distribution Losses. However, after scrutinising LT R-15 submitted by CSPDCL for FY 2016-17, the Commission observes that the percentage of burnt/defective meters is in the range of 4-5% and the assessed cases are in the range of 26-30% of the total bills raised by CSPDCL. Particularly, for agricultural category where CSPDCL has shown a 5% increase in the consumption, the percentage of burnt/defective meters is in the range of 6-13% and the assessed cases are in the range of 56-68% of the total bills raised by CSPDCL. Hence, the reasons given by the Commission in its earlier Order dated June 12, 2014 for not allowing gains on account of Distribution Losses hold true for FY 2016-17 also, and hence, the Commission has decided that no incentive should be given to CSPDCL against its claim of overachievement of Distribution Loss target.

6.4 Power Purchase Cost

CSPDCL's Submission

CSPDCL has purchased the power from CSPGCL generating stations, Central Generating Stations (CGS) and other sources such as Captive Power Plants, Bio-mass units, CPPs/IPPs, Solar and other RE sources, CSPTrdCL and other short-term sources to meet the energy requirement of the State during FY 2016-17. CSPDCL submitted the power purchase cost of Rs. 9,846.92 Crore for FY 2016-17 based on provisional annual accounts.

Further, CSPDCL submitted that the power purchase cost as recorded by the commercial department is Rs. 10,269.62 Crore, which is higher than the cost recorded in the provisional accounts. CSPDCL has not considered the difference of Rs. 422.70 crore in the net power purchase cost, and has restricted its claim for the purpose of provisional true-up in line with the provisional accounts. Any deviation, whether positive or negative, post the reconciliation of power purchase cost and subsequent audit of the accounts will be submitted along with detailed justification at the time of final True-up of the FY 2016-17.

Further, CSPDCL utilised banked power of 194.02 MU during FY 2016-17. It has also returned 2,322.04 MU of banked power during FY 2016-17 and the same has been claimed at Nil cost. Under the regulatory principles, banking of power involves a cashless transaction, where interchange of units has to be accomplished. This is in line with the Judgment of the Hon'ble APTEL dated July 1, 2014 in Appeal No. 220 of 2013, wherein it has held that:

> *"In the present case, the electricity is actually available to distribution licensee during financial year when it requires the electricity. The said electricity has been accounted for and has been supplied to the consumers but the same ought not to be taken for calculating the total quantum of electricity available with the distribution licensee during the year only for the purposes of calculation of APPC.* ***We may further observe that there can be no notional cost attributed to such banked energy and the cost,*** *if any, has to be included in the total power purchase cost of the distribution licensee when the corresponding electricity is supplied to the third party.* ***In our view, the State Commission has correctly taken the price of the banked energy as available with the distribution licensee/HPSEBL at a zero cost****.* ***The banking is a continuous transaction. The principle of banking of energy is that the electricity received by the distribution licensee is to be returned.*** *When the banked energy is rolled over, its return is only postponed. It is not that electricity is not to be received. The quantum*

of electricity to be returned would only increase in the subsequent years in future to compensate for the roll over and thereby increase the APPC substantially."

CSPDCL requested the Commission to approve power purchase expenses (including transmission charges) of Rs. 9,846.92 Crore for FY 2016-17 as per provisional accounts against Rs. 8,005.64 Crore approved by the Commission in the MYT Order.

Commission's View

The Commission sought the details of quantum of injection/drawal under DSM and corresponding DSM Charges paid/(received) at inter-State level as well as intra-State level and also details of short term power purchased/(sold) during FY 2016-17.

Further, it is observed that the effective rate of net energy procured under UI/DSM is around Rs. 10/kWh. CSPDCL clarified that it has not received any energy at effective rate of around Rs. 10/kWh, and the UI account carries 244.77 MU of under-drawal for an amount of Rs. 19.60 Crore at average rate of 80 paise per unit. The over-drawal quantum is 336.72 MU for an amount of Rs. 111.42 Crore at average rate of Rs. 3.31/kWh. The effective rate of Rs. 9.98/kWh is a result of mathematical netting of drawal and injection, which cannot be considered as rate payable. The Commission has scrutinised the details submitted by CSPDCL and accepts the submission of CSPDCL in this regard.

The Commission sought the various details of power purchase expenses for prudence check. However, in response to this, CSPDCL submitted that due to introduction of new accounting standards, audited accounts for FY 2016-17 are under preparation, which have to undergo a further stage of statutory audit thereafter. CSPDCL submitted that under such circumstances, it is difficult to provide the details and hence, asked for additional time from the Commission.

In the absence of relevant data that has not been submitted by CSPDCL, it is not possible to undertake the prudence check of the following:

(a) Power purchase expenses including break-up of Delayed Payment Surcharge payable/paid to CSPGCL, CSPTCL and CGS, as well as details of Other charges

(b) Monthly transmission charges paid to CSPTCL

(c) Reconciliation of payment made by CSPDCL to CSPGCL for thermal and hydro generation, with revenue booked by CSPGCL.

(d) Reconciliation of payment made by CSPDCL to CSPTCL with revenue booked by CSPTCL.

The Commission directs CSPDCL to submit the above said details along with necessary reconciliation, at the time of Final Truing up for FY 2016-17.

Further, the Commission notes that the power purchase cost of Rs. 422 Crore is yet to be reconciled between the bills available with Commercial Department and cost reflected in provisional accounts. CSPDCL submitted that it is still in the process of reconciliation of power purchase in the annual accounts, and has hence, not proposed the amount of Rs. 422 Crore for provisional truing up. The Commission accepts the submission of CSPDCL and has accordingly not considered the amount of Rs. 422 Crore in power purchase cost for provisional truing up. Any deviation, whether positive or negative, post the reconciliation of power purchase cost and subsequent audit of the accounts shall be considered at the time of final Truing up, subject to prudence check.

Further, the Commission directs CSPDCL to submit the Banking Agreements for all the banking transactions entered into during the Year, and the reconciliation of each transaction with regard to the respective Banking Agreement, clearly showing the energy units received under forward banking and the units returned under return banking. These details should be submitted along with the Petition for final true-up for FY 2016-17 and each subsequent true-up Petition.

CSPDCL also clarified that the head 'Others' under CSPGCL amounting to Rs. 655.59 crore, includes the CSPGCL Revenue Gap of Rs. 203.84 crore and Rs. 310.46 crore, which were billed separately by CSPGCL based on approved on account of CSPGCL true-up amounts.

The Commission scrutinized the available material placed on record including the provisional accounts for FY 2016-17, and the actual source-wise power purchase cost for FY 2016-17 as submitted by CSPDCL. The Commission has not considered any Delayed Payment Surcharge in its computation, based on available data. However, the actual inter-State and intra-State Transmission Charges, UI and SLDC charges have been verified from the provisional accounts for FY 2016-17 and allowed accordingly. The revenue of Rs. 1037.19 Crore against the sale of 2789 MU has not been considered in the Power Purchase expenses, as it is a revenue item, and has been considered separately under revenue. The approved source-wise power purchase expenses after provisional true-up for FY 2016-17 are shown in the Table below:

Table 6-6: Approved Power Purchase Cost for FY 2016-17

Source	MYT Order			CSPDCL's Petition			Approved after Provisional true-up		
	Quantum (MU)	Cost (Rs. Cr)	Rate (Rs/kWh)	Quantum (MU)	Cost (Rs. Cr)	Rate (Rs/kWh)	Quantum (MU)	Cost (Rs. Cr)	Rate (Rs/kWh)
CGS	**8807.62**	**2570.13**	**2.92**	**7,851.49**	**2,487.89**	**3.17**	**7,851.49**	**2,487.89**	**3.17**
NTPC sub-total	*8173.08*	*2346.01*	*2.87*	*7,036.59*	*2,172.86*	*3.09*	*7,036.59*	*2,172.86*	*3.09*
NTPC-SAIL (NSPCL)	*311.41*	*133.42*	*4.28*	*253.82*	*112.10*	*4.42*	*253.82*	*112.10*	*4.42*
NPCIL	*309.25*	*88.62*	*2.87*	*349.97*	*103.03*	*2.94*	*349.97*	*103.03*	*2.94*
Others (NVVN, Hirakud, Subhansiri)	*13.88*	*2.08*	*1.50*	*211.11*	*60.06*	*2.84*	*211.11*	*60.06*	*2.84*
Other Charges				-	39.85	-	-	39.85	
CSPGCL	**18309.6**	**5178.23**	**2.83**	**16,767.93**	**6,062.28**	**3.62**	**16,767.93**	**6,062.28**	**3.31**
Total CSPGCL Thermal & Hydro	*18212.68*	*5132.72*	*2.82*	*16,727.30*	*5,390.96*	*3.22*	*16,727.30*	*5,390.96*	*3.22*
KTPS-East				1,986.73	860.61	4.33	1,986.73	860.61	4.33
DSPM – TPS				3,658.08	1,157.99	3.17	3,658.08	1,157.99	3.17
Hasdeo TPS				5,328.78	1,238.92	2.32	5,328.78	1,238.92	2.32
KTPS-West				3,165.95	1,126.09	3.56	3,165.95	1,126.09	3.56
Marwa				2,441.14	978.38	4.01	2,441.14	978.38	4.01
HPS Bango				146.62	28.97	1.98	146.62	28.97	1.98
Total CSPGCL Renewables	*96.92*	*45.51*	*4.70*	*40.63*	*15.73*	*3.87*	*40.63*	*15.73*	*3.87*
HPS Korba Mini Hydel				8.13	3.17	3.89	8.13	3.17	3.89
Gangarel				23.50	8.77	3.73	23.50	8.77	3.73
Sikasar				4.18	1.14	2.72	4.18	1.14	2.72
Co-gen Kawardha				4.82	2.66	5.52	4.82	2.66	5.52
Other Charges (Surcharge, Others etc.)				-	655.59	-	-	655.59	

Source	MYT Order			CSPDCL's Petition			Approved after Provisional true-up		
	Quantum (MU)	Cost (Rs. Cr)	Rate (Rs/kWh)	Quantum (MU)	Cost (Rs. Cr)	Rate (Rs/kWh)	Quantum (MU)	Cost (Rs. Cr)	Rate (Rs/kWh)
IEX/PXIL/Traders	**0**	**0**	**0**	**345.32**	**83.51**	**2.42**	**345.32**	**83.51**	**2.42**
Unscheduled Interchange	**0**	**0**	**59.31**	**91.95**	**91.74**	**9.98**	**91.95**	**91.74**	**9.98**
Over-Drawal				336.72	111.42	3.31	336.72	111.42	3.31
Under-Drawal				(244.77)	(19.69)	0.80	(244.77)	(19.69)	0.80
Renewables	**1471.17**	**818.36**	**5.56**	**1,208.58**	**744.68**	**6.16**	**1,208.58**	**744.68**	**6.16**
Biomass	898.74	494.31	5.50	911.31	541.02	5.94	911.31	541.02	5.94
Hydel	320.15	160.07	5.00	6.61	3.16	4.78	6.61	3.16	4.78
Solar	252.28	163.98	6.50	290.66	200.50	6.90	290.66	200.50	6.90
Concessional Power - through CSPTrdCL	**2154.96**	**410.39**	**1.90**	**1,561.66**	**300.52**	**1.92**	**1,561.66**	**300.52**	**1.92**
CPPs/IPPs/Short Term	**0**	**0**	**0**	**1,461.35**	**386.74**	**2.65**	**1,461.35**	**386.74**	**2.65**
Banking Net		**0**	**0**	**194.02**	**-**	**-**	**194.02**	**-**	**-**
Power Export under Swap				2,322.04	-	-	2,322.04	-	-
Power Import under Swap				194.02	-	-	194.02	-	-
Other Sources	**0**	**0**	**0**	**16.03**	**10.25**	**6.39**	**16.03**	**10.25**	**6.39**
Gross Power Purchase	**30,743.35**	**8,977.11**	**2.92**	**29,498.33**	**10,167.60**	**36.31**	**29,498.33**	**10,167.60**	**3.27**
Less: Rebate				-	17.31	-	-	17.31	
Less: GBI Claim received during the FY				-	6.42	-	-	6.42	
Less: Revenue from Sale of Surplus Power				2,789.00	1,037.19	-	2,789.00	*	-
Less: Power purchase cost pending for reconciliation				-	422.70	-	-	422.70	

Source	MYT Order			CSPDCL's Petition			Approved after Provisional true-up		
	Quantum (MU)	Cost (Rs. Cr)	Rate (Rs/kWh)	Quantum (MU)	Cost (Rs. Cr)	Rate (Rs/kWh)	Quantum (MU)	Cost (Rs. Cr)	Rate (Rs/kWh)
Transmission Charges				**-**	**1,162.93**	**-**	**-**	**1,072.49**	
Inter-State Transmission Charges					256.85			256.85	
Intra-State Transmission Charges					835.41			835.41	
Transmission - Other Charges					65.15			65.15	
SLDC Charges					5.52			5.52	

Note: * Revenue of Rs. 1037.19 Crore from the sale of surplus energy has been considered separately under revenue from Sale of power.

6.5 O&M Expenses

CSPDCL's Submission

CSPDCL submitted the actual O&M expenses of Rs. 1,164.31 Crore as against the normative O&M expenses of Rs. 1,066.26 Crore approved by the Commission for FY 2016-17 in the MYT Order.

CSPDCL submitted that the actual employee expenses including interim wage relief for FY 2016-17 is Rs. 820.92 Crore based on provisional accounts. CSPDCL also submitted the sum of Repair & Maintenance (R&M) and Administrative & General (A&G) expenses for FY 2016-17 as Rs. 343.38 Crore, based on the available provisional accounts.

For computation of sharing of gains/(losses), CSPDCL has not considered any gain and loss on account of employee costs in line with the first amendment to the MYT Regulations, 2015. CSPDCL has escalated the approved normative O&M expenses in the MYT Order as per the Regulations based on the applicable CPI and WPI indices.

CSPDCL further submitted that a substantial portion of A&G expenses is governed by Change in Law, which is binding on CSPDCL. Hence, under settled principles, such expenses should not be treated as controllable expenses, as elaborated below:

(a) Minimum wages to be paid to contractual staff are decided by District Collector of the concerned area and the same has to be adopted by CSPDCL also. Further, such wages have undergone considerable increase over the last few years (more than the average WPI) and thus need to be delinked from norms, as the same are required to be paid strictly in accordance with the provisions of the Minimum Wages Act, 1948. As CSPDCL has no control over the same, CSPDCL requested the Commission to consider the same as uncontrollable for the purpose of computation of gain and losses.

(b) Electricity charges of offices and establishments are to be paid as per the prevailing tariff only. Recent years have witnessed tariff increase more than the average WPI increase. Since this expense is also independent of average WPI inflation, CSPDCL requested the Commission to consider the same as uncontrollable for the purpose of computation of gain and losses.

Based on above submission, CSPDCL has computed an efficiency loss of Rs. 91.92 Crore. As O&M losses are controllable, CSPDCL requested the Commission to

approve Rs. 45.96 Crore as sharing of loss in O&M expenses for FY 2016-17 as per the MYT Regulations, 2015.

Commission's View

In the MYT Order, the O&M expenses for FY 2016-17 was approved as Rs. 1012.26 Crore, and Rs. 54.01 Crore of interim wage relief was approved separately. Further, the contribution to Pension and Gratuity fund for FY 2016-17 was approved separately as Rs. 298.80 Crore.

Regulation 57.4 of the MYT Regulations, 2015 specifies as under:

"

(a) Operation and Maintenance (O&M) Expenses for the distribution licensee shall include:

I. Employee Cost;

II. Administrative and general Expenses

III. Repairs and Maintenance Expenses

(b) The Commission shall stipulate a separate trajectory for each of the components of O&M expenses viz. employee cost, R&M expense and A&G expense for the control period.

(c) The employee cost, excluding pension fund contribution and impact of pay revision arrears for the base year i.e. FY 2015-16 shall be derived on the basis of the normalized average of the actual employee expenses, excluding pension fund contribution and impact of pay revision arrears, available in the accounts for the previous five years immediately preceding the base year FY 2015-16, subject to prudence check by the Commission. Any other expense of non-recurring nature shall also be excluded while determining normalized average for the previous five years.

(d) The normalization shall be done by applying last five years average increase in Consumer Price Index (CPI) on year to year basis. The average of normalized net present value for FY 2010-11 to FY 2014-15, shall then be used to project base year value for FY 2015-16. The base year value so arrived, shall be escalated by the above inflation rate to estimate the employee expenses (excluding impact of pension fund contribution and pay revision, if any) for each year of the control period.

At the time of true-up the employee costs shall be considered after taking into account the actual increase in CPI during the year instead of projected inflation for that period.

Provided further that impact of pay revision (including arrears) and pension fund contribution shall be allowed on actual during true-up as per accounts, subject to prudence check and any other factor considered appropriate by the Commission."

The actual O&M expenses comprising Employee expenses, R&M expenses, and A&G expenses for FY 2016-17 claimed by CSPDCL is Rs. 1,164.37 Crore.

The Employee Expenses has to be passed through at actuals as per the first amendment to MYT Regulations, 2015, and has been considered accordingly.

CSPDCL was asked to justify the substantial increase of 51% of actual R&M expenses for FY 2016-17 at Rs. 190.10 Crore, as compared to the approved R&M expenses. In response, CSPDCL submitted that approved R&M is based on actual R&M for FY 2010-11 to FY 2014-15 along with the appropriate inflation as per the provisions of MYT Regulations, 2015. CSPDCL further submitted that opening assets itself have grown by 69% from FY 2013-14 to FY 2016-17, i.e., from Rs. 3058.65 Crore to Rs. 5159.00 Crore. While there is requirement of R&M expenses toward new assets also, the Regulations have no provisions to link R&M commensurate to increase in asset base.

The Central Statistics Office (CSO), Ministry of Statistics and Programme Implementation, revises the base year of macroeconomic indicators from 2004-05 to 2011-12 as a regular exercise, to capture structural changes in the economy. The summary of the average WPI considered for revised normative A&G expenses and R&M expenses are as shown below:

Table 6-7: Computation of Inflation rate (%)

Particulars	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17
WPI	6.90%	5.20%	1.26%	-3.65%	1.73%

The normative A&G expenses and R&M expenses as approved in the MYT Order have been revised as per the above inflation rate taking WPI escalation of 1.73% for FY 2016-17, after considering the new WPI. The O&M expenses considered for provisional True-up for FY 2016-17 are shown in the table below:

Table 6-8: O&M Expenses for CSPDCL for FY 2016-17 as approved by the Commission (Rs. Crore)

Sr. No.	Particulars	MYT Order	CSPDCL Petition	Approved after Provisional true-up
1	Net Employee Expenses (incl. Interim Relief)	750.78	820.92	820.92
2	Net A&G Expenses	135.52	153.34	129.13
3	Net R&M Expenses	125.95	190.10	120.01
4	**Total O&M Expenses**	**1,012.25**	**1,164.37**	**1,070.06**

Regulation 57.4 (c) and (d) of the MYT Regulations, 2015 specify as under:

"(c) The employee cost, excluding pension fund contribution and impact of pay revision arrears for the base year i.e. FY 2015-16, shall be derived on the basis of the normalized average of the actual employee expenses, excluding pension fund contribution and impact of pay revision arrears, available in the accounts for the previous five (5) years immediately preceding the base year FY 2015-16, subject to prudence check by the Commission. Any other expense of non-recurring nature shall also be excluded while determining normalized average for the previous five (5) years.

(d) The normalization shall be done by applying last five-year average increase in Consumer Price Index (CPI) on year to year basis. The average of normalized net present value for FY 2010-11 to FY 2014-15, shall then be used to project base-year value for FY 2015-16. The base year value so arrived, shall be escalated by the above inflation rate to estimate the employee expense (excluding impact of pension fund contribution and pay revision, if any) for each year of the control period.

At the time of true up, the employee costs shall be considered after taking into account the actual increase in CPI during the year instead of projected inflation for that period.

Provided further that impact of pay revision (including arrears) and pension fund contribution shall be allowed on actual during the true-up as per accounts, subject to prudence check and any other factor considered appropriate by the Commission."

However, the Commission has issued the 1st amendment to the MYT Regulations, 2015 wherein it is specified that:

"In clause 13.1 of the principal regulations, the following proviso shall be inserted, namely: -

Provided further that employee cost shall not be factored in for sharing of gains or losses on account of Operation and Maintenance expenses."

In line with above amendment, the Commission has not considered any gain and loss on account of employee costs.

Further, Regulation 57.4 (e) and (f) of CSERC MYT Regulations, 2015 regarding A&G Expenses and R&M Expenses specify as under:

"(e) The administrative and general expenses and repair and maintenance expenses, for the base year i.e. FY 2015-16, shall be derived on the basis of the normalized average of the actual administrative and general expenses and repair and maintenance expenses, respectively available in the accounts for the previous five (5) years immediately preceding the base year FY 2015-16, subject to prudence check by the Commission. Any expense of non-recurring nature shall be excluded while determining normalized average for the previous five (5) years.

(f) The normalization shall be done by applying last five-year average increase in Wholesale Price Index (WPI) on year to year basis. The average of normalized net present value for FY 2010-11 to FY 2014-15, shall then be used to project base year value for FY 2015-16. The base year value so arrived, shall be escalated by the above inflation rate to estimate the administrative and general expense and repair and maintenance expenses for each year of the control period.

At the time of true up, the administrative and general expenses and repair and maintenance expenses shall be considered after taking into account the actual inflation instead of projected inflation for that period."

As per the above provisions in the Regulation regarding sharing of gains/(losses) of O&M expenses, the Commission has computed the gains/losses on the basis of revised normative A&G expenses and R&M expenses, in accordance with the MYT Regulations, 2015.

It is important to note that all the expenses booked under O&M expenses, except Employee Expenses, are 'Controllable factors' as per Clause 11.2 of the MYT Regulations, 2015 read with first amendment. No exceptions are permitted under the Controllable factors for part of such controllable factors. Hence, the sharing of A&G expenses and R&M expenses is done on the basis of actual expenses as per the provisional accounts submitted by CSPDCL.

The Commission has undertaken the sharing of gains or losses for R&M expenses and A&G Expenses for FY 2016-17 as shown in the following Table:

Table 6-9: Sharing of Gain/(Loss) for CSPDCL for FY 2016-17 (Rs. Crore)

Particulars	Revised Normative	Actual Expenses	Efficiency Gain/(loss)	Entitlement of Gain/(Loss)	
				CSPDCL	Consumers
Employee Expenses	820.92	820.92	-	-	-
A&G Expenses	129.13	151.62	(22.49)	(11.24)	(11.24)
R&M Expenses	120.01	190.10	(70.09)	(35.04)	(35.04)
Total	**1070.06**	**1162.65**	**(92.58)**	**(46.29)**	**(46.29)**

Hence, the net allowable O&M expenses for FY 2016-17, after sharing of efficiency losses, works out to Rs. 1116.35 Crore.

As regards the contribution to Pension and Gratuity fund for FY 2016-17, the amount is reported as approved in the MYT Order at Rs. 298.80 Crore. The Commission approves the actual contribution to Pension and Gratuity as Rs. 298.80 Crore for the provisional truing up for FY 2016-17.

6.6 Correction in Capital Structure

CSPDCL's submission

CSPDCL has proposed corrections in capital structure on the basis of Commission's treatment to consumer contribution, deposit work and grants, while computing the normative debt:equity, stating that the Commission has lowered the base for permissible equity and consequently Return on Equity for current as well as future years.

CSPDCL submitted that the Commission in the MYT Order dated July 12, 2013 had adopted a methodology for determination of capital structure of Gross Fixed Assets.

In this, the Commission identified the consumer contribution in GFA (based on its past period workings and the available data) and applied the ratio of live assets (GFA minus fully depreciated assets) to total assets to identify the amount of consumer contribution in live assets. The average depreciation rate on the estimated amount of Grant and consumer contribution in live assets has been considered to compute depreciation. Accordingly, such amount of depreciation on live assets has been reduced. Similar approach was followed by the Commission while computing the interest and finance charges for respective years.

CSPDCL submitted that the Commission has followed this approach till the final true-up for FY 2010-11. However, from FY 2011-12 onwards, the Commission has deviated from its own methodology, which has resulted in lowering of the permissible equity base and wrong determination of other related parameters of capital structure. Hence, corrections are necessary in light of the principle of law that no estoppel lies on operation of statute.

Further, CSPDCL submitted that in the Tariff Order dated June 12, 2014 in the true-up for FY 2011-12 and FY 2012-13, the Commission has considered the actual value of consumer contribution as per the annual accounts. The actual consumer contribution is subtracted from the addition in GFA and the remaining amount is divided in Debt and Equity in the ratio of 70: 30. Similar modified approach has been followed in the true-up of FY 2013-14, FY 2014-15 and FY 2015-16 also. On account of this deviation from the approved capital structure, the rightful claim of permissible equity of 30% of Gross Fixed Assets as per the provisions of the applicable Regulations, i.e., MYT Regulations, 2010 and MYT Regulations, 2012 has been denied to CSPDCL. Consequently, it has resulted in an understated equity base for the third MYT Control Period.

CSPDCL added the specific provision for not considering consumer contribution, deposit work and grant obtained for the execution of the project as part of the capital structure for the purpose of computation of normative debt:equity, has been introduced for the first time in the third MYT Control Period only. However, the Commission has effected the treatment from the second year of first Control Period itself. CSPDCL submitted that the Commission has deviated from its own MYT Regulations for the computation of permissible equity from FY 2011-12 to FY 2015-16 and hence, necessary corrections have been proposed.

The net addition in Gross Fixed Assets has been considered after excluding RGGVY assets capitalized in FY 2013-14 and FY 2014-15 and eventually transferred to GoCG

in FY 2015-16. The grant addition has been considered as per the actual addition as per the audited accounts. However, as the assets created in RGGVY have not been considered, the corresponding grant addition and subsequently deletion has been excluded from the capital structure.

CSPDCL submitted that only the loan towards the already capitalized assets (and not the CWIP portion) has been considered for repayment of grant of Rs. 870.12 Crore, which has been received under UDAY MoU. Therefore, it is not liable to impact the permissible equity already considered and approved. Further, the assets equivalent to Rs 870.12 Crore now being funded through grant instead of loan are not eligible for depreciation and are hence, treated as fully depreciated assets for the purpose of computation of depreciation.

Accordingly, the grant, loan and equity addition due to capitalization during the year (in line with the provisions of approved capital structure) are shown in the Table below:

Table 6-10: Funding of Capitalized Assets considered in capital structure from FY 2011-12 to FY 2015-16 (Rs. crore)

Particulars	FY 12	FY 13	FY 14	FY 15	FY 16
Total Capitalization	407.97	430.38	1106.55	549.80	444.00
Contribution of Grant in Capitalized Assets	150.60	191.89	237.95	176.48	233.24
Contribution of Loan in Capitalized Assets	109.20	218.45	271.56	302.17	115.97
Contribution of Equity in Capitalized Assets	148.17	20.04	597.03	71.16	94.79

Accordingly, the impact of correction in capital structure claimed by CSPDCL is shown in the Table below:

Table 6-11: Impact of correction in capital structure from FY 2011-12 to FY 2015-16 (Rs. crore)

Particulars	FY 12	FY 13	FY 14	FY 15	FY 16
As per the proposed corrections in capital structure					
Interest on Loan	49.81	52.54	67.47	87.81	66.97
Depreciation	67.68	81.36	109.45	143.27	135.34
RoE	116.92	136.42	177.70	217.45	241.31
Total	**234.41**	**270.31**	**354.63**	**448.54**	**443.61**

Particulars	FY 12	FY 13	FY 14	FY 15	FY 16
Already approved in the True-ups undertaken by the Commission					
Interest on Loan	49.92	52.12	78.28	102.79	66.45
Depreciation	67.84	81.65	110.46	120.83	149.1
RoE	113.73	125.74	154.66	187.02	192.92
Total	**231.49**	**259.51**	**343.40**	**410.64**	**408.47**
Difference Now additionally claimed					
Interest on Loan	-0.11	0.42	-10.81	-14.98	0.52
Depreciation	-0.16	-0.29	-1.01	22.44	-13.76
RoE	3.19	10.68	23.04	30.43	48.39
Total	**2.92**	**10.80**	**11.23**	**37.90**	**35.14**
Additional claim along with carrying cost					
Opening Claim	0.00	3.11	15.16	29.13	73.52
During the year	2.92	10.80	11.23	37.90	35.14
Closing Claim	**2.92**	**13.91**	**26.39**	**67.03**	**108.66**
Interest Rate	13.00%	14.75%	13.20%	13.50%	13.50%
Carrying Cost	0.19	1.26	2.74	6.49	12.30
Claim with Carrying Cost	**3.11**	**15.16**	**29.13**	**73.52**	**120.96**

Accordingly, the impact of correction in capital structure along with the carrying cost from FY 2011-12 to FY 2015-16 has been submitted as Rs. 120.96 Crore. CSPDCL requested the Commission to consider the same in the provisional true-up for FY 2016-17.

Capital Structure for FY 2016-17

CSPDCL submitted that the capital structure for FY 2016-17 has been determined based on the following:

(a) The actual loan addition of Rs. 286.52 Crore has been considered as per the available provisional accounts for FY 2016-17.

(b) No grant has been received towards repayment of loans under UDAY in FY 2016-17.

(c) Addition in consumer contribution/grants has been considered Rs. 359.97 Crore as per the provisional accounts for FY 2016-17.

(d) Normative equity addition has been considered based on capital restructuring methodology as approved by the Commission in the Tariff Order dated July 12, 2013.

(e) GFA addition of Rs. 662.93 Crore has been considered as per the available provisional accounts for FY 2016-17.

(f) Opening values of various parameters have been considered equal to the closing values of FY 2015-16.

CSPDCL submitted the revised Capital Structure for FY 2016-17 as under:

Table 6-12: Capital Structure for FY 2016-17 as submitted by CSPDCL (Rs. Crore)

Particulars	Legend	FY 2016-17
Gross Fixed Assets (GFA)		
Opening GFA	A	5,159.00
Opening CWIP	B	2,273.74
Opening CAPEX	C=A+B	7,432.74
Capitalization during the year	D	662.93
Closing GFA	E=D+A	5,821.94
Closing CWIP	F	2,975.33
Closing CAPEX	G=F+E	8,797.26
Grants and Consumer Contribution		
Opening Grant and Contribution	H	2,768.05
Consumer contribution/grants during the year	I	359.97
Closing Consumer Contribution	J=H+I	3,128.01
Consumer Contribution in Opening GFA	K=H*A/C	1,921.28
Consumer Contribution in Closing GFA	L=J*E/G	2,070.09
Loan Borrowed		
Opening Borrowed Loan	M	2,193.87
Loan Borrowed during the year	N	286.52
Closing Borrowed Loan	O=M+N	2,480.39
Borrowed Loan in Opening GFA	P=M*A/C	1,522.75
Borrowed Loan in Closing GFA	Q=MAX (O*E/G, P)	1,641.49
Equity		
Opening Gross Equity	R=C-H-M	2,470.83
Equity Addition During the Year	T=S-R	718.03
Closing Gross Equity	S=G-J-O	3,188.86
Gross Equity in Opening GFA	U=A-K-P	1,714.98

Particulars	Legend	FY 2016-17
Gross Equity in Closing GFA	V=C-L-Q	2,110.36
Average Gross Equity During the year	W=Avg (U, V)	1,912.67
Funding of Capitalized Assets		
Total Capitalization		662.93
Contribution of Grant in Capitalized Assets		148.81
Contribution of Loan in Capitalized Assets		118.75
Contribution of Equity in Capitalized Assets		395.38

Commission's View

The Commission notes that CSPDCL has raised the issue of revision of capital structure in the present Petition, when earlier Orders have achieved finality and there is no appeal filed or pending on this issue against earlier Orders. The Commission sought justification from CSPDCL in this regard. CSPDCL submitted that during the preparation of present Petition, it has discovered that the Return on Equity allowed by the Commission since 2011 is understated. This has two-tier effect on the Licensee's revenue, i.e., one-time loss of revenue during past years and understatement of equity structure leading to recurring effect on Return on Equity for future years. CSPDCL further submitted that its claim relied upon the principles considered by the Commission in the Tariff Order dated July 12, 2013 with regard to consideration of old claims/reliefs.

As regards the justification for claiming carrying cost in view of the fact that CSPDCL is claiming such relief for the first time, CSPDCL submitted that while error/mistake in capital structure is sought to be rectified for the first time in the present Petition, the correction is being sought from FY 2011-12 onwards when the error appeared for the first time and has been perpetuated to present years. The correction will eventually impact the trued-up Revenue Gap/Surplus of the relevant years. CSPDCL cited the Judgment of Hon'ble APTEL dated October 9, 2015 in Appeal No. 308 of 2013. CSPDCL submitted that the carrying cost claimed is nothing but the time value of money, which otherwise would have been available with CSPDCL, had the error/mistake in capital structure not been made in the first place.

The Commission in its Tariff Order dated June 12, 2014 has considered the actual value of consumer contribution as per the annual accounts. The actual consumer contribution has been subtracted from the addition in GFA and the remaining amount is divided in Debt and Equity in the ratio of 70:30. It is important to note that consumer contribution and grants forms part of public money, which is received by

the Utility in different forms and cannot be considered as its own infused equity. This computation made by the Commission above is based on the financially prudent principles and the Commission while issuing the said Tariff Order has rightly reduced the consumer contribution and grants from the GFA, before considering funding by equity and loans for the balance amount from FY 2011-12 onwards. This is clearly seen from Table 175 (Pages 221 and 222) of the Tariff Order dated July 2013, as reproduced below:

"Table 13: Capital Structuring for CSPDCL (Rs. Crore)

Particulars	Legend	01.04.05		01.04.10			01.04.13
Opening GFA	1	597.07		2,032.14			2,846.84
Permissible Equity	2	206.18		636.70			881.10
% of Equity in GFA	3=2/1	34.53%		31.33%			30.95%

CAPEX and GFA									
Particulars	**Legend**	**FY2008-09**	**FY 2009-10**	**FY 2010-11**	**FY 2011-12**	**FY 2012-13**	**FY 2013-14**	**FY 2014-15**	**FY 2015-16**
Opening GFA	A	1,752.15	1,814.90	2,032.14	2,222.89	2,519.07	2,846.84	3,067.84	3,317.84
Opening CWIP	B	1,102.70	1,165.39	1,229.71	1,506.58	1,595.86	1,927.44	2,021.44	2,128.44
Opening Capex	c=a+b	2,854.85	2,980.29	3,261.85	3,729.46	4,114.93	4,774.28	5,089.28	5,446.28
Capitalisation during the Year	D	62.75	217.25	190.74	296.18	327.77	221.00	250.00	311.00
Closing GFA	e=d+a	1,814.90	2,032.14	2,222.89	2,519.07	2,846.84	3,067.84	3,317.84	3,628.84
Closing CWIP	F	1,165.39	1,229.71	1,506.58	1,595.86	1,927.44	2,021.44	2,128.44	2,261.44
Closing Capex	g=f+e	2,980.29	3,261.85	3,729.46	4,114.93	4,774.28	5,089.28	5,446.28	5,890.28

Grants and Consumer Contribution									
Particulars	**Legend**	**FY2008-09**	**FY 2009-10**	**FY 2010-11**	**FY 2011-12**	**FY 2012-13**	**FY 2013-14**	**FY 2014-15**	**FY 2015-16**
Opening Grant and Contribution	H	1,350.94	1,425.98	1,469.26	1,562.91	1,679.12	2,465.51	2,465.51	2,465.51
Consumer Contribution/Grants during the Year	I	75.04	43.28	93.65	116.21	383.55	-	-	-
Closing Consumer Contribution	j=h+i	1,425.98	1,469.26	1,562.91	1,679.12	2,062.68	2,465.51	2,465.51	2,465.51
Consumer Contribution in Opening GFA	k=h*a/c	829.14	868.38	915.36	931.55	1,027.92	1,470.15	1,486.22	1,501.97
Consumer Contribution in Closing GFA	l=j*e/g	868.38	915.36	931.55	1,027.92	1,229.95	1,486.22	1,501.97	1,518.93

Loan Borrowed									
Particulars	**Legend**	**FY2008-09**	**FY 2009-10**	**FY 2010-11**	**FY 2011-12**	**FY 2012-13**	**FY 2013-14**	**FY 2014-15**	**FY 2015-16**
Opening Borrowed Loan	M	565.97	565.97	655.62	848.34	976.85	740.37	992.37	1,277.97
Loan Borrowed during the Year	n	-	89.65	192.72	128.51	166.35	252.00	285.60	355.20
Closing Borrowed Loan	o=m+n	565.97	655.62	848.34	976.85	1,143.20	992.37	1,277.97	1,633.17

Borrowed Loan in Opening GFA	*p=m*a/c*	*347.36*	*347.36*	*408.45*	*505.64*	*598.01*	*441.47*	*598.21*	*778.53*
Borrowed Loan in Closing GFA	*q=max(o*e/g,p)*	*347.36*	*408.45*	*505.64*	*598.01*	*681.67*	*598.21*	*778.53*	*1,006.15*
Equity									
Particulars	***Legend***	***FY2008-09***	***FY 2009-10***	***FY 2010-11***	***FY 2011-12***	***FY 2012-13***	***FY 2013-14***	***FY 2014-15***	***FY 2015-16***
Opening Gross Equity	*r=c-h-m*	*937.93*	*988.34*	*1,136.97*	*1,318.21*	*1,458.95*	*1,568.40*	*1,631.40*	*1,702.80*
Equity addition during the Year	*t=s-r*	*50.40*	*148.63*	*181.24*	*140.74*	*109.45*	*63.00*	*71.40*	*88.80*
Closing Gross Equity	*s=g-j-o*	*988.34*	*1,136.97*	*1,318.21*	*1,458.95*	*1,568.40*	*1,631.40*	*1,702.80*	*1,791.60*
Gross Equity in Opening GFA	*u=a-k-p*	*575.65*	*599.16*	*708.33*	*785.70*	*893.14*	*935.22*	*983.41*	*1,037.33*
Gross Equity in Closing GFA	*v=e-l-q*	*599.16*	*708.33*	*785.70*	*893.14*	*935.22*	*983.41*	*1,037.33*	*1,103.76*
Average Gross Equity during the year	*w=avg(u,v)*	*587.41*	*653.75*	*747.02*	*839.42*	*914.18*	*959.31*	*1,010.37*	*1,070.54*
Permissible Equity									
Particulars	***Legend***	***FY2008-09***	***FY 2009-10***	***FY 2010-11***	***FY 2011-12***	***FY 2012-13***	***FY 2013-14***	***FY 2014-15***	***FY 2015-16***
Permissible Equity in Opening GFA	*x=MIN(2+(a-1)*30%,u)*	*552.70*	*571.52*	*636.70*	*693.92*	*782.77*	*881.10*	*947.40*	*1,022.40*
Permissible Equity in Closing GFA	*y=MIN(2+(e-1)*30%,v)*	*571.52*	*636.70*	*693.92*	*782.77*	*881.10*	*947.40*	*1,022.40*	*1,103.76*
Average Gross Permissible Equity during the year	*z=avg(x,y)*	*562.11*	*604.11*	*665.31*	*738.35*	*831.94*	*914.25*	*984.90*	*1,063.08*
Normative Loan									
Particulars	***Legend***	***FY2008-09***	***FY 2009-10***	***FY 2010-11***	***FY 2011-12***	***FY 2012-13***	***FY 2013-14***	***FY 2014-15***	***FY 2015-16***
Opening Normative Loan	*aa=x-u*	*22.95*	*27.64*	*71.64*	*91.78*	*110.36*	*54.11*	*36.01*	*14.93*
Closing Normative Loan	*ab=v-z*	*27.64*	*71.64*	*91.78*	*110.36*	*54.11*	*36.01*	*14.93*	-

”

Thus, there has been no change in approach from FY 2011-12 onwards as contended by CSPDCL, as the Consumer Contribution and Grants have been reduced from the GFA addition before considering the normative debt:equity ratio, which has been consistently done for all the years.

The approach adopted by the Commission is also in accordance with Regulation 21 of the MYT Regulations, 2012, which clearly specifies that no depreciation, Return on Equity and Interest on Loan Capital shall be given on assets funded by consumer contribution and grants. This Clause has been totally missed by CSPDCL in its contentions in this regard.

Further, the Hon'ble APTEL in its Judgment dated March, 14, 2016 in Appeal No. 157 of 2015, upheld that the amount of grants and consumer contribution have to be reduced before considering the debt:equity ratio. The relevant text of the Judgment is reproduced below:

> *"9.1.8 That the whole argument of the appellant is deviating from the main issue of whether the grant should be considered as grant or not. The correct method of accounting is to consider the debt equity ratio after reducing the amount of grants and consumer contribution as this reflects an amount that utility has to arrange either through own fund or through debts. The grants and consumer contribution do not have any costs i.e. they neither have to be returned nor have any interest or dividend to be paid on these amounts. Whereas, on equity capital, the utility is entitled to ROE and for debt, interest is allowed. Thus, there is no merit in the contention of the appellant that 30% of the asset value should be considered as equity. If the appellant's contention is accepted then, if tomorrow 100% of the asset is funded by grant, the appellant will claim ROE on 30% of such amount and claim interest on normative loan on 70% of such amount. Even though, by virtue of grant neither does the amounts have to be returned nor have any interest or dividend to be paid on these amounts, which would be totally opposed to all norms of tariff determination."*

Further, in Judgment dated 17 September 2014 in Appeal No. 46 of 2014, the Hon'ble APTEL has held that the Consumer Contribution cannot be capitalised and considered for the purpose of claiming RoE.

It is also pertinent to note that CSPDCL had raised the similar issue in Appeal No. 308 of 2013, wherein the methodology for determination of equity for the period from FY 2005-06 to FY 2013-14 in Order dated July 2013, was challenged and the Order of the Commission was upheld and approved by the Hon'ble APTEL.

CSPDCL is indirectly re-opening the same issue, by claiming RoE on assets funded by Grants/Consumer Contribution, which is not permissible.

It shows that the Commission had followed the correct approach while computing the equity base of CSPDCL during FY 2011-12 and for subsequent years. In order to bring more clarity to the same issue, the Commission in its MYT Regulations, 2015, under Regulation 17.1 introduced the provision to reduce the consumer contribution and grants from capital expenditure for the purpose of computation of normative debt:equity.

It should be further noted that Regulation 23(2) of the CSERC (Conduct of Business) Regulations, 2009 provides for filing a review before the Commission, if the Party is aggrieved by the Order passed by the Commission. The relevant text of the Regulation is reproduced below.

> *"23.* ***Review of decisions, directions and orders***
>
> ……..
>
> *An application for review shall be filed within a period of 30 days from the date of decision / order or direction or the date of communication of such decision / order or direction which is sought to be reviewed, and it shall be filed in the same manner as a petition."*

Apart from this, Section 111(2) of the Electricity Act, 2003 provides for the aggrieved Party to file an Appeal before the Appellate Tribunal for Electricity, as reproduced below.

> "***Section 111. (Appeal to Appellate Tribunal):***
>
> ……
>
> (2) *Every appeal under sub-section (1) shall be filed within a period of forty-five days from the date on which a copy of the order made by the adjudicating officer or the Appropriate Commission is received by the aggrieved person and it shall be in such form, verified in such manner and be accompanied by such fee as may be prescribed:*
>
> ……..."

It is observed that CSPDCL has neither filed any Review Petition before the Commission or the higher courts within the time frame provided in the Regulations on this issue, nor has this issue been raised in Appeal, though CSPDCL has filed Appeals on other issues on each of these Tariff Orders.

Further, CSPDCL has questioned the basis of restructuring the equity base only from FY 2011-12, but the same could be restructured from FY 2005-06 onwards, i.e., from the time CSPDCL was unbundled from CSEB. It is important to note that the Commission in its Orders from FY 2005-06 onwards took a liberal approach while considering the equity and approved normative equity on net-worth of the Utility, when the actual equity was merely Rs. 23 Crore, so that the Utility could utilise the surplus in expanding its T&D network, though the CSERC (Terms and Conditions for Determination of Tariff) Regulations, 2006 provided for considering the actual equity for computation of Return on Equity, if the actual equity is less than 30%. The relevant text of the Regulation and the Tariff Order is reproduced below:

As per clause 12 (1) of CSERC (Terms and Conditions for determination of Tariff) Regulations, 2006 –

> *"In case of a new distribution line or substation commissioned or capacity expanded on or after 1.4.2005, the debt and equity in the capital cost of such a project shall be considered in the ratio of 70:30 for the purpose of determination of tariff.*
>
> *Provided that where equity employed is more than 30%, the amount of equity for the purpose of tariff shall be limited to 30% and the balance amount shall be considered as loan. The interest rate applicable on the equity above 30%, treated as loan, has been specified in clause 20.*
>
> *Provided that where actual equity employed is less than 30%, the actual equity shall be considered."*

However, the Commission in its Tariff Order dated June 15, 2005 took a liberal view and approved returns of Rs. 53.32 Crore in spite of CSPDCL having a low equity base of Rs. 23 Crore. The relevant text of the Tariff Order is reproduced below:

> *"5.3.8 Reasonable Return*
>
> *…… … …*
>
> *The equity base of the Board is very low at only Rs. 23 Crore. Therefore, even if the Commission allows 14% return on the equity, it will be of little consequence to the Board. In consideration of the provisions of the EA, 2003, CERC guidelines, draft Tariff Policy and to allow the Board adequate surplus for investment in new generation units and expansion of T & D network, the Commission considers it appropriate to allow 14% return on the net-worth of the Board at the beginning of the year. Net-worth has been considered for the purpose of the ROR because the*

retained earnings are supposed to have gone into creation of new fixed assets. The draft Tariff Policy also provides that for the purposes of return on equity, premium raised by a company while issuing share capital and investment or internal resources created out of free reserves of existing company, if any, for the funding of a project, should be reckoned as paid up capital for the purpose of computing return on equity, provided such premium and internal resources are actually utilized for meeting the capital expenditure of the project (para 5.3 of the draft Tariff Policy). The Commission also feels that this will give a right signal to private investment in the power sector of the State.

The Commission accordingly allows a return of Rs. 53.32 Crore on the net-worth of Rs. 380.84 Crore at the beginning of the FY06."

It is therefore observed that the claims made by CSPDCL are giving rise to re-opening previous Orders, where the Commission went beyond the Regulations and approved what was in greater public interest.

Therefore, CSPDCL's claim does not have any rationale, and hence, the capital structure and equity base has been considered as approved in previous Orders and the computation is done accordingly for FY 2016-17.

Further, it is observed that CSPDCL has restated the values of asset addition in FY 2013-14 and FY 2014-15 and the values of CWIP for all the Years, which are at variation with the figures as per the Audited Accounts for the respective years, as shown in the Table below:

Table 6-14: Revised Capital Structure as submitted by CSPDCL (Rs. Crore)

Year	Particulars	Audited Accounts	Revised Submission
FY 2011-12	Opening GFA	2220.30	2220.30
	Opening CWIP	1204.80	1506.58
	Capitalisation during the year	407.97	407.97
	Closing GFA	2628.27	2628.27
	Closing CWIP	1180.29	1482.54
FY 2012-13	Opening GFA	2628.27	2628.27
	Opening CWIP	1180.29	1482.54
	Capitalisation during the year	430.40	430.38
	Closing GFA	3058.67	3058.65
	Closing CWIP	1203.86	1506.12
FY 2013-14	Opening GFA	3058.65	3058.65
	Opening CWIP	1203.86	1506.12
	Capitalisation during the year	1329.19	1106.55
	Closing GFA	4387.84	4165.20
	Closing CWIP	1442.97	1745.23

Year	Particulars	Audited Accounts	Revised Submission
FY 2014-15	Opening GFA	4387.84	4165.20
	Opening CWIP	1442.97	1745.23
	Capitalisation during the year		549.80
	Closing GFA	5217.25	4715.00
	Closing CWIP	1717.16	2019.43
FY 2015-16	Opening GFA	5217.25	4715.00
	Opening CWIP	1717.16	2019.43
	Capitalisation during the year	444.28	444.00
	Less: Asset transfer under RGGVY	502.24	
	Closing GFA	5159.29	5159.00
	Closing CWIP	2149.72	2273.74

The restatement of GFA addition in FY 2013-14 and FY 2014-15 is because of exclusion of RGGVY assets capitalized in FY 2013-14 and FY 2014-15 and eventually transferred to GoCG in FY 2015-16. However, the restatement of CWIP for all the Years, which are at variation with the figures as per the Audited Accounts for the respective years, is highly objectionable, and shows that CSPDCL is not giving due sanctity to the audited accounts.

In conclusion, the Commission is of the view that CSPDCL's contentions in this regard have no merit due to the following reasons:

(a) There has been no change in approach from FY 2011-12 as contended by CSPDCL, as the Consumer Contribution and Grants have been reduced from the GFA addition, before considering the normative debt:equity ratio, which has been consistently done for all the years.

(b) CSPDCL's submission that the provision for deducting the consumer contribution and grants before determination of Debt:Equity ratio for the purpose of calculating depreciation, RoE and interest, is absent in the MYT Regulations, 2012, is factually incorrect. Clause 21 of the MYT Regulations, 2012 clearly specifies that no depreciation, Return on Equity and Interest on Loan Capital shall be given on assets funded by consumer contribution and grants. Similar provision existed in the Tariff Regulations, 2006 also.

(c) Even the first proviso of Clause 17.1 specifies that where the equity actually deployed is lower than normative of 30% of capitalised asset, then actual equity shall be considered. It is inconceivable as to how CSPDCL is claiming grant and consumer contribution as equity

contribution and claiming Interest expenses, Depreciation and Return on Equity on such funds.

(d) The issue has achieved finality and final true-up from FY 2005-06 to FY 2015-16 has been completed. This issue was also raised in Appeal No. 308 of 2013 and the Commission's Order has been upheld by the Hon'ble APTEL. The Tariff Orders for FY 2014-15, FY 2015-16, and FY 2016-17 have been challenged before the Hon'ble APTEL, which covers the true-up of FY 2011-12 to FY 2014-15, but this issue was never raised before the Hon'ble APTEL in the respective Appeals. Hence, CSPDCL's contentions in this regard are not acceptable.

Further, CSPDCL has submitted that the consumer contribution/grant has been considered as Rs. 359.97 Crore, however, as per the provisional accounts submitted by CSPDCL the consumer contribution/grants is Rs. 1230.09 Crore. CSPDCL was asked to justify the difference. In response, CSPDCL submitted that UDAY grant of Rs. 870.12 Crore received in FY 2015-16 was wrongly linked with the consumer contribution and grant instead of showing it as a separate head, and requested the Commission to consider Rs. 359.97 Crore as consumer contribution as submitted in the Petition. As regards the GFA for FY 2016-17, the closing GFA for FY 2015-16 as approved in the true-up order has been considered as the opening GFA for FY 2016-17. The GFA considered in the provisional true-up for FY 2016-17 is shown in the table below:

Table 6-15: GFA approved for CSPDCL for FY 2016-17 (Rs. Crore)

Particulars	MYT Order	CSPDCL Petition	Approved after Provisional true-up
Opening GFA	5,530.83	5,159.00	5,159.00
Additional Capitalisation during the Year	686.24	662.93	662.93
Less: Transfer of assets under RGGVY	-	-	-
Closing GFA	6,217.08	5,821.93	5,821.93

6.7 Depreciation

CSPDCL's Submission

CSPDCL submitted that the depreciation has been calculated as per Regulation 24 of MYT Regulations 2015. It has considered the treatment of grant received under

UDAY while calculating the depreciation for FY 2016-17. CSPDCL has claimed depreciation of Rs. 131.19 Crore for FY 2016-17 as against Rs. 97.79 Crore approved in the MYT Order dated April 30, 2016, for the purpose of provisional truing up.

Commission's View

The Commission sought computation of depreciation on fully depreciated assets from CSPDCL. The depreciation for FY 2016-17 has been computed by applying the weighted average depreciation rate of 5.33%, which has been computed by applying the specified depreciation rates for each asset group with the GFA under that asset group. The depreciation on fully depreciated assets has been deducted in accordance with the approach adopted in the previous Orders. The depreciation on consumer contribution in live assets has been deducted as per Regulation 24 of the MYT Regulations, 2015. Similarly, depreciation on assets converted from loan to grant under UDAY has been deducted. The depreciation approved for FY 2016-17 after provisional true-up is shown in the Table below:

Table 6-16: Approved Depreciation for FY 2016-17 (Rs. Crore)

Particulars	MYT Order	CSPDCL Petition	Approved after Provisional True-Up
Opening GFA	5530.83	5,159.00	5,159.00
Additional Capitalisation during the Year	1579.17	662.93	662.93
GFA at the end of the year after transfer of RGGVY assets	-	5,821.93	5,821.93
Average GFA for the year	6320.42	5,490.47	5,490.47
Depreciation Rates (%)	4.95%	5.33%	5.33%
Gross Depreciation	312.81	292.69	292.69
Less: Depreciation on consumer contribution on live assets	153.31	98.54	122.31
Less: Depreciation on Fully Depreciated Assets	16.94	16.58	16.58
Less: Depreciation on assets converted from loan to grant under UDAY	-	46.39	46.39
Net Depreciation	**142.56**	**131.19**	**107.42**

6.8 Interest on Loan Capital

CSPDCL's Submission

CSPDCL submitted that the interest on loan capital has been computed in accordance with Regulation 23 of the MYT Regulations, 2015. CSPDCL submitted the actual loan details as per the provisional accounts as shown in the following Table:

Table 6-17: Actual loan details for FY 2016-17 as submitted by CSPDCL (Rs. Crore)

Particulars	Opening Loan	Addition	Repayment	Closing	Average
REC Ltd.	331.03	251.47	7.59	574.90	452.97
Power Finance Corporation Ltd.	190.84	35.05	1.14	224.74	207.79
CSPHCL	100.00	0.00	100.00	0.00	50.00
State Government	86.35	0.00	0.00	86.35	86.35
Total	**708.21**	**286.52**	**108.73**	**886.00**	**797.10**

CSPDCL submitted that the repayment of CSPHCL (SBI SLR Bonds) includes final payment of bond holder's interest. CSPDCL has considered the closing loan balance as per its submission in the true-up for FY 2015-16 as the opening loan balance for FY 2016-17. The provisional debt component of GFA addition in FY 2016-17 has been considered as the loan addition during the year, which is Nil, due to conversion of loan into grant under UDAY. The allowable depreciation for the year has been considered as the normative repayment for the year. The weighted average interest rate of 7.11% has been considered for computation of interest expenses for FY 2016-17. CSPDCL claimed the interest on loan capital of Rs. 19.09 Crore for FY 2016-17 as against the interest expenses of Rs. 132.52 Crore approved in the MYT Order.

Commission's View

The Commission sought the documentary evidences for the opening loan balance for FY 2016-17, applicable interest rate for each source of loan and also the computation of weighted average rate of interest for FY 2016-17. The Commission has considered the closing Net normative loan for FY 2015-16 as approved by the Commission in its previous Tariff Order as opening net

normative loan for FY 2016-17. The debt portion of the approved capitalisation for FY 2016-17 has been considered as the loan addition during the year.

The Commission has considered the fact that no grants has been received by CSPDCL under UDAY in FY 2016-17 towards the repayment of loans. The allowable depreciation for the year has been considered as normative repayment for the year. The actual weighted average interest rate based on the actual loan portfolio has been considered for computing the interest expenses for FY 2016-17. The interest expense approved for FY 2016-17, after provisional Truing up, is shown in the following Table:

Table 6-18: Approved Interest Expense for FY 2016-17 for CSPDCL (Rs. Crore)

Particulars	MYT Order	CSPDCL Petition	Approved after Provisional True-Up
Total Opening Net Normative Loan	2,069.08	115.68	716.91
Repayment during the period	142.56	131.19	107.42
Additional Capitalization of Borrowed Loan during the year	444.73	118.75	144.17
Addition/(Reduction) in Normative loan during the year		241.14	211.27
Total Closing Net Normative Loan	2,371.25	344.38	964.94
Average Normative Loan during the year	2,220.16	230.03	840.92
Wt. Avg. Interest Rate	8.24%	7.11%	7.11%
Interest Expense	**182.90**	**16.35**	**59.75**

6.9 Interest on Working Capital

CSPDCL's Submission

CSPDCL submitted that the Interest on Working Capital (IoWC) has been computed as per Clause 25 of the MYT Regulations, 2015. It has considered the interest rate of 12.80% (9.30% - SBI-PLR on April 1, 2016 plus 350 basis points) for computing the IoWC. CSPDCL submitted the normative IoWC for FY 2016-17 as Rs. 45 Crore for provisional Truing up.

Commission's View

The normative IoWC has been computed in accordance with the MYT Regulations, 2015. The Commission has considered the revised normative O&M expenses for computing the working capital requirement. The receivables have been considered equivalent to one month's actual revenue. The average Consumer Security Deposit of Rs. 1523.99 Crore has been considered during FY 2016-17. Since, the Consumer Security Deposit is more than normative working capital requirement, the actual IoWC for FY 2016-17 is negative and works out as shown in the Table below:

Table 6-19: Approved IoWC for CSPDCL for FY 2016-17 (Rs. Crore)

Particulars	MYT Order	CSPDCL Petition	Approved after Provisional True-Up
Operation and Maintenance expenses for one Month	88.86	97.03	89.17
Maintenance spares at 15% of O&M Expense	50.38	76.04	48.00
Receivable equivalent to one month of revenue from sale of electricity	977.09	963.91	922.98
Total Working Capital Requirement	1,116.33	1,136.98	1,060.16
Less: Average amount of Consumer Security Deposit Held during the year	1,352.81	1,488.56	1,523.99
Gross Interest on Working Capital	-	(351.58)	(463.83)
Rate of Interest on Working Capital	13.20%	12.80%	12.80%
Net Interest on Working Capital	-	**(45.00)**	**(59.37)**

6.10 Interest on Consumer Security Deposit

CSPDCL's Submission

CSPDCL has considered the Interest on Consumer Security Deposit (CSD) paid to the consumers in line with the Regulation 6.13 of the Chhattisgarh Electricity Supply Code, 2011. Accordingly, the actual interest on CSD paid by CSPDCL in FY 2016-17 is Rs. 99.88 Crore as per the provisional accounts.

Commission's View

The Commission sought details of actual interest on CSD paid to consumers/adjusted in consumer's bills and variation with the interest on CSD booked as per provisional accounts for FY 2016-17. CSPDCL confirmed that the interest on CSD booked in the provisional accounts for FY 2016-17 has been actually paid to consumers/adjusted in consumer's bills. The Commission has approved the interest on CSD for FY 2016-17 as claimed by CSPDCL as shown in the Table below:

Table 6-20: Approved Interest on CSD for CSPDCL for FY 2016-17 (Rs. Crore)

Particulars	MYT Order	CSPDCL Petition	Approved after Provisional True-Up
Opening Consumer Security Deposit	1,288.39	1,373.78	1,444.64
Addition to Consumer Security Deposit	128.84	229.55	158.69
Closing Consumer Security Deposit	1,417.23	1,603.33	1,603.33
Average Consumer Security Deposit	1,352.81	1,488.56	1,523.99
Interest on Consumer Security Deposit	**90.19**	**99.88**	**99.88**

6.11 Return on Equity

CSPDCL's Submission

CSPDCL has computed permissible equity as per the capital restructuring proposed by CSPDCL in its Petition and Regulation 17.1 of the MYT Regulations, 2015. CSPDCL has considered 16% as rate of Return on Equity for FY 2016-17. CSPDCL has claimed RoE of Rs. 264.30 Crore in the provisional true-up for FY 2016-17.

Commission's View

The Commission has considered the closing permissible equity approved for FY 2015-16 in the final true-up, as the opening permissible equity for FY 2016-17. The equity portion of the additional net capitalisation for FY 2016-17 has been considered as the equity addition for the year. The Commission has considered rate of return as 16% on average equity for the year as per MYT Regulations,

2015. The RoE approved after provisional true-up for FY 2016-17 is shown in the Table below:

Table 6-21: Approved RoE for CSPDCL for FY 2016-17 (Rs. Crore)

Particulars	MYT Order	CSPDCL Petition	Approved after Provisional True-Up
Permissible Equity in Opening GFA	1,686.31	1,574.76	1,269.14
Permissible Equity in Closing GFA	1,892.18	1,729.00	1,468.02
Average Gross Permissible Equity during the year	1,789.25	1,651.88	1,368.58
Rate of Return on Equity	16.00%	16.00%	16.00%
Return on Equity	**217.40**	**264.30**	**218.97**

6.12 Non-Tariff Income

CSPDCL's Submission

CSPDCL submitted the Non-Tariff income of Rs. 201.99 Crore for FY 2016-17 for the purpose of provisional Truing up. This includes Non-Tariff income of Rs. 180.35 Crore and revenue from Wheeling Charges, Open Access and Cross-Subsidy Charges of Rs. 21.64 Crore for FY 2016-17.

Commission's View

The Commission sought head-wise details of Non-Tariff Income for FY 2016-17 and explanation for the significantly lower income compared to that approved in the Tariff Order.

However, CSPDCL submitted that audited accounts for FY 2016-17 are under preparation due to introduction of new accounting principles, which have to undergo a further stage of statutory audit thereafter. Under such circumstances, it is difficult to provide details of Non-Tariff Income as sought by the Commission.

Hence, for the purpose of the provisional truing up, the Commission approves the Non-Tariff Income as submitted by CSPDCL for FY 2016-17. CSPDCL should submit all the necessary details at the time of final truing up for FY 2016-17.

6.13 Aggregate Revenue Requirement

The Commission in MYT Order had approved the component-wise ARR for each year of the Control Period from FY 2016-17 to FY 2020-21. The provisional true-up for FY 2016-17 has been done with respect to the ARR components approved in the MYT Tariff Order.

Based on the above, the ARR approved in the Provisional True-up for FY 2016-17 is shown in the Table below:

Table 6-22: Approved ARR for CSPDCL for FY 2016-17 (Rs. Crore)

Sr. No.	Particulars	MYT Order	CSPDCL Petition	Approved after Provisional True-Up
A	**Power Purchase Expenses**	**8,005.64**	**9,846.92**	**10,884.11**
1	Power Purchase Cost	6,828.11	8,683.99	9,721.17*
2	Inter-State Transmission charges (PGCIL)	341.63	256.85	256.85
3	Intra-State Transmission Charges	823.49	835.41	835.41
4	WRLDC Charges		1.31	1.31
5	CSLDC Charges	12.41	5.52	5.52
6	Other Charges		63.85	63.85
B	**Operation & Maintenance Expenses**	**1,365.06**	**1,463.11**	**1,368.86**
1	Net Employee Expenses	750.78	820.92	820.92
2	Net Administrative and General Expenses	135.52	153.28	129.13
3	Net Repair and Maintenance charges	125.95	190.10	120.01
4	Pension & Gratuity	298.80	298.80	298.80
5	Interim Wage Relief	54.01	-	-
C	**Interest & Finance Expenses**	**122.16**	**73.96**	**100.26**
1	Interest on Loan	64.18	19.09	59.75
2	Interest on Security Deposit	90.19	99.88	99.88
3	Interest on Working Capital Requirement	(32.21)	(45.00)	(59.37)

Sr. No.	Particulars	MYT Order	CSPDCL Petition	Approved after Provisional True-Up
D	**Other Expenses**	**315.19**	**395.49**	**326.39**
1	Depreciation	97.79	131.19	107.42
2	Return on Equity	217.40	264.30	218.97
E	**Gain/(Loss) on Efficiency**	**-**	**(10.56)**	**(46.29)**
1	Gain/(Loss) on Sharing O&M Efficiency	-	(45.96)	(46.29)
2	Licensee's Share in Gain on account of reduction in distribution losses	-	35.40	-
G	**Less: Non-Tariff Income**	**322.83**	**201.99**	**208.95**
1	Non-Tariff Income	252.01	180.35	187.31
2	Wheeling Charges, Open Access & Cross Subsidy Charges	70.82	21.64	21.64
G	**Annual Revenue Requirement**	**11,634.22**	**11,566.94**	**12,516.96**

Note: * - Revenue from sale of surplus power has been considered separately, whereas CSPDCL has reduced the power purchase expenses to the extent of revenue from sale of surplus power

6.14 Revenue from Sale of Power

CSPDCL's Submission

CSPDCL submitted the total revenue from sale of power of Rs. 10,725.78 Crore for FY 2016-17 as per provisional accounts, as against Rs. 11,981.15 Crore as approved by the Commission in the MYT Order.

Commission's View

The revenue from Retail Sale for FY 2016-17 as submitted by CSPDCL is Rs. 10,725.78 Crore, while the provisional accounts as submitted by CSPDCL reflects the revenue of Rs. 10,789.02 Crore. CSPDCL clarified that it would like to stick with Rs. 10,725.78 Crore as revenue from sale of power, as the remaining revenue of Rs. 63.24 Crore pertains to various items like fuse charges, disconnection /reconnection charges, public lighting maintenance, service charges, etc., and has been considered in Non-Tariff Income. The Commission has accepted CSPDCL's submission in this regard. The State Government

subsidy of Rs. 350 Crore towards targeted subsidy for steel industry has been considered in the Revenue from Sale of Power to Steel Industry rather than State Government subsidy as considered by CSPDCL. Thus, the Revenue from Sale of Power has been considered as Rs. 11075.78 crore (Rs. 10725.78 crore + Rs. 350 crore). The balance State Government subsidy of Rs. 350 crore has been considered separately as Revenue Subsidy.

The revenue from sale of surplus power of Rs. 1037.19 crore has been considered under revenue, for the purposes of computing the Revenue Gap/(Surplus) after provisional true-up for FY 2016-17.

Further, the Commission has considered the amount of Rs. 240.24 Crore as additional revenue towards Agriculture metered category, as discussed in earlier Section of this Order.

The Commission has accordingly considered total Revenue from sale of power in the provisional true-up for FY 2016-17 as shown in the Table below:

Table 6-23: Approved Revenue for FY 2016-17 (Rs. Crore)

Particulars	CSPDCL Petition	Approved after Provisional Truing up
Revenue from Retail Sale of Electricity	10,725.78	11,075.78
Add: Additional revenue for Agriculture Metered category	-	240.24
Net Revenue from Sale of Electricity	**10,725.78**	**11,316.02**

Note: * has been considered towards reduction of power purchase cost by CSPDCL

6.15 Revenue Gap/(Surplus) for FY 2016-17

CSPDCL's Submission

CSPDCL has submitted a standalone Revenue Gap of Rs. 841.16 Crore for FY 2016-17 based on the provisional ARR and Revenue. CSPDCL also submitted that GoCG has provided revenue subsidy of Rs. 700 Crore, wherein Rs. 350 Crore is towards the committed revenue subsidy and remaining Rs. 350 Crore is towards rebate provided to the Steel Industries. Further, true-up surplus of CSPGCL, CSPTCL, and CSLDC after provisional true-up for FY 2016-17 has been considered. CSPDCL submitted that it has considered all other applicable

adjustments to arrive at final provisional True-up Revenue Gap of Rs. 2,297.68 Crore along with carrying cost.

Commission's View

As discussed earlier, the Commission has considered the Revenue Subsidy as Rs. 350 Crore, while the targeted subsidy of Rs. 350 Crore for Steel Industry has been considered in the Revenue from Sale of Power. Further, as per past practice, the true-up Revenue Gap/(Surplus) after provisional true-up for CSPGCL, CSPTCL, and CSLDC for FY 2016-17 has not been considered for computing the Revenue Gap/(Surplus) of CSPDCL for FY 2016-17, and the same have been considered while computing the cumulative Revenue Gap/(Surplus) for FY 2018-19, as discussed in the subsequent Chapters. The summary of standalone Revenue Gap/(Surplus) approved after provisional true up for CSPDCL for FY 2016-17, is shown in the Table below:

Table 6-24: Approved Stand-alone Revenue Gap/Surplus for FY 2016-17 (Rs. Crore)

Sl.	Particulars	MYT Order	CSPDCL Petition	Approved after Provisional True-up
1	CSPDCL ARR	11,634.22	11,566.94	12,516.96
2	Balance FCA to be recovered	202.55	-	-
3	Impact of truing up of 2014-15 and APTEL Judgment with carrying cost up to 2016-17 for CSPGCL	514.30	-	-
4	Impact of truing up of 2014-15 and APTEL Judgment with carrying cost up to 2016-17 for CSPTCL	89.90	-	-
5	Impact of truing up of 2014-15 and APTEL Judgment with carrying cost up to 2016-17 for CSLDC	0.54	-	-
6	Impact of truing up of 2014-15 and APTEL Judgment with carrying cost up to 2016-17 for CSPDCL	2,799.56	2,799.56	2,799.56
7	**Total ARR of CSPDCL for FY 2016-17**	**15,241.07**	**14,366.50**	**15,316.52**
8	Less: State Government Subsidy	350.00	700.00	350.00
9	Less: Revenue from sale of surplus power	2,149.08	-	1,037.19
10	**Net ARR of CSPDCL for FY 2016-17**	**12,741.99**	**13,666.50**	**13,929.34**
11	Less: Regulatory asset for CSPDCL	760.80	760.80	760.80

Sl.	Particulars	MYT Order	CSPDCL Petition	Approved after Provisional True-up
12	Impact of Correction in Capital Structure	-	120.96	-
13	ARR of CSPDCL to be recovered in FY 2016-17	11,981.19	13,026.66	13,168.54
14	True-up Revenue Gap/(Surplus) of CSPDCL	-	-	-
15	True-up Revenue Gap/(Surplus) of CSPGCL	-	(122.05)	-
16	True-up Revenue Gap/(Surplus) of CSPTCL	-	(18.61)	-
17	True-up Revenue Gap/(Surplus) of CSLDC	-	(0.74)	-
18	**Revenue from Sale of Power**	**-**	**10,725.78**	**11,316.02**
19	**Revenue Gap/(Surplus)**	**-**	**2,159.48**	**1,852.52**

After applying the carrying cost for 2 years, i.e., from mid-point of FY 2016-17 to mid-point of FY 2018-19 on this Revenue Gap of Rs. 1,852.52 Crore, the total amount which is required to be factored in the revenue requirement of CSPDCL for FY 2018-19 works out to Rs. 2,357.60 Crore.

7 REVISED ARR FOR FY 2018-19

7.1 Background

CSPDCL, in accordance with the MYT Regulations, 2015, submitted the revised projection of sales, power purchase and revised ARR for FY 2018-19.

Regulation 5.7 (b) (ii) of the CSERC MYT Regulations, 2015 specifies as under:

"2. Revised power purchase quantum/cost (if any), with details thereof, for the ensuing year.

3. Revenue from existing tariffs and charges and projected revenue for the ensuing year.

4. Application for re-determination of ARR for the ensuing year along-with retail tariff proposal."

In view of the above, in this Chapter, the Commission has revised the projection of energy sales, power purchase and determined the revised ARR for FY 2018-19 for CSPDCL.

7.2 Energy Sales

CSPDCL's Submission

CSPDCL submitted that there are various factors, which can have an impact on the actual consumption of electricity and are often beyond the control of the Licensee, such as Government Policy, economic scenario, weather conditions, force-majeure events like natural disasters, change in consumption mix, etc. CSPDCL submitted that the Commission has specified the sales mix and quantum of sales as uncontrollable, which are beyond the control of the Licensee and cannot be mitigated.

CSPDCL further submitted that the Commission in the MYT Order had merged the HV and EHV categories into supply at HV voltage level to be effective from April 1, 2016. For projecting the category-wise energy sales for FY 2018-19, CSPDCL has categorized the past sales prior to FY 2016-17 based on new/re-defined categories/ sub-categories and apportioned it so that the total actual category-wise sales remain the same. CSPDCL has considered the past growth trends in each consumer category for projecting energy sales for FY 2018-19. The Compounded Annual Growth Rate (CAGR) has been computed for each LV and HV consumer category for the past 5-year period from FY 2011-12 to FY 2016-

17, 4-year period from FY 2012-13 to FY 2016-17, 3-year period from FY 2013-14 to FY 2016-17, 2-year period from FY 2014-15 to FY 2016-17, along with Year-on-Year growth rate in FY 2016-17 over FY 2015-16.

Subject to the specific characteristics of each consumer category, the 5-Year CAGR has been chosen as the basis of sales projection for that category. For example, if an abnormal growth rate (very high) relative to the current trend is observed at the beginning of the five-year period considered, then the maximum growth has been considered as 10% for that particular category/sub-category. Further, if the five-year CAGR is less than 10%, then the actual growth has been considered. In cases where the past data has showed a declining trend, Nil growth has been considered.

For making projections of energy sales and connected load/number of consumers, the actual sales for FY 2016-17 for each consumer category has been considered as the base, i.e., the CAGR is applied over the actual sales for FY 2016-17 to make projections for each category for FY 2017-18 and FY 2018-19.

Commission's View

In order to project more realistic energy sales for FY 2018-19, the Commission sought the actual category-wise sales from April 2017 to September 2017, and estimated category-wise sales for the remaining months of FY 2017-18.

Based on the actual energy sales for April 2017 to September 2017, the Commission has projected the category-wise sales for the remaining months of FY 2017-18 based on past trends. The Commission has computed the 5-Year, 4-Year, 3-Year, and 2-Year CAGR and Year-on-Year growth rate. The appropriate growth rate has been selected for projecting the category-wise energy sales for FY 2018-19. The category-wise sales projected by CSPDCL and approved by the Commission has been discussed in the following paragraphs:

LV-1: Domestic Consumers including BPL consumers

CSPDCL's Submission

CSPDCL submitted that as per the latest available data at the end of FY 2016-17, it has 38.75 lakh Domestic Consumers including BPL Consumers. It has recorded a 4-year CAGR of 7.65%, and the same has been used to project the sales for this category at 5,471.95 MU for FY 2018-19.

Commission's View

The Commission notes that CSPDCL has projected sales of 5471.95 MU to this category as compared to the sales of 6704.56 MU approved in the MYT Order. The Commission has projected the energy sales based on the long-term 4-year CAGR of 7.65%. Accordingly, the Commission has estimated sales to domestic category (including BPL) at 5785.87 MU for FY 2018-19. The Commission has projected the slab-wise energy sales in the same proportion of the actual sales for FY 2016-17.

LV-2.1: Non-Domestic Category

CSPDCL's Submission

CSPDCL submitted that it has recorded a 4-year CAGR of 5.99% for the Non-domestic category and the same has been considered for projecting sales of 930.40 MU for FY 2018-19.

Commission's View

The Commission notes that CSPDCL has projected sales of 930.40 MU to this category as compared to the sales of 1065.36 MU approved in the MYT Order.

The sales to Non-domestic category have increased at CAGR of 7.30% over the last five years, 5.99% over the last four years, 4.84% over the last three years, 4.57% over the last two years, and 3.03% Year-on-Year based on actual sales for FY 2016-17.

The Commission has considered the 4-year CAGR of 5.99% for projection of sales to Non-domestic category on the estimated sales for FY 2017-18. The Commission has estimated sales to Non-domestic category at 915.37 MU for FY 2018-19. The Commission has projected the slab-wise energy sales in the same proportion of the actual sales for FY 2016-17.

LV-2.2: Non-Domestic Consumers (Demand Based Tariff)

CSPDCL's Submission

CSPDCL submitted that that for the Non-domestic (Demand based tariff) category, it has considered the CAGR of 10% due to abnormally high 5-Year CAGR, 4-year CAGR, etc., for projecting the sales of 41.11 MU for FY 2018-19.

Commission's View

The Commission notes that CSPDCL has projected sales of 41.11 MU to this category as compared to the sales of 78.01 MU approved in the MYT Order. The sales to non-domestic (demand-based tariff) category have increased at CAGR of 52.26% over the last five years, 45.75% over the last four years, 49.84% over the last three years, 53.57% over the last two years, and 48.06% year-on-year based on the actual sales for FY 2016-17.

The substantial increase in the sales to this category is because of the low base, and hence, the Commission has considered fixed CAGR of 10% for projection of sales for FY 2018-19 over the estimated sales for FY 2017-18. The Commission has estimated sales to Non-domestic category (demand-based tariff) at 47.36 MU for FY 2018-19.

LV 3: Agriculture Metered Category

CSPDCL's Submission

CSPDCL submitted that Agriculture Metered category sales have grown at a rate of 12.49% based on the 5-year CAGR with the sales recorded at 3753.69 MU in FY 2016-17. Therefore, considering increase on the sales of FY 2016-17 based on past trends would not be appropriate. Hence, CSPDCL has projected the energy sales by considering an increase of 10%.

Commission's View

The Commission notes that CSPDCL has projected 4541.96 MU sales to this category as compared to the sales of 4139 MU approved in the MYT Order. The sales to Agriculture metered category has increased at CAGR of 12.49% over the last five years, 13.58% over the last four years, 18.88% over the last three years, 18.07% over the last two years, and 6.02% year-on-year based on the actual sales for FY 2016-17.

The Commission is of view that the above growth rates include the impact of assessed consumption for Agriculture metered category, and are hence, not reliable. It would be pertinent to note that GoCG is not providing any grant for new agriculture pump connections by conventional means. However, GoCG is encouraging use of solar pumps for Agriculture connection by providing grants. Therefore, it would not be appropriate to consider such high growth rate for projection. Hence, the Commission has considered growth rate of 2% on ad-hoc

basis for projecting energy sales for FY 2018-19 for Agriculture metered category. The Commission has estimated energy sales of 3,905.34 MU for FY 2018-19.

LV 4: Agriculture Allied Services

CSPDCL's Submission

CSPDCL submitted that it has considered an increase of 5.75% for projecting the sales for Agriculture Allied Services category.

Commission's views

The Commission notes that CSPDCL has projected 19.61 MU sales to this category as compared to the sales of 17.65 MU approved in the MYT Order. The sales to Agriculture Allied Services category has increased at CAGR of 7.08% over the last five years, 3.30% over the last four years, 4.79% over the last three years, 3.81% over the last two years, and 5.69% year-on-year based on the actual sales for FY 2016-17.

The Commission has considered the 3-year CAGR of 4.79% for projection of sales over the estimated sales for FY 2017-18. The Commission has estimated sales to Agriculture Allied Services category at 15.34 MU for FY 2018-19.

LV 5: LT Industry

CSPDCL's Submission

CSPDCL submitted that the growth rate in LT Industrial category has been estimated for each sub-category and has been assumed as 1.73% equivalent to 5-year CAGR, as a smooth trend is observed over the past five years.

Commission's Views

The Commission notes that CSPDCL has projected sales of 562.94 MU as compared to the sales of 495.09 MU approved in the MYT Order. The Commission has observed a CAGR of 1.73% over the last five years, 2.08% over the last four years, 0.12% over the last three years, -0.44% over the last two years, and -2.29% year-on-year based on the actual sales for FY 2016-17.

The Commission has considered an increase of 0.12% in sales to LT Industry in FY 2018-19 over the estimated sales in FY 2017-18 and has accordingly approved sales at 560.39 MU for FY 2018-19.

LV 6: Public Utilities

CSPDCL's Submission

CSPDCL submitted that Public Utilities category, comprising street lights and public water works, has shown a smooth growth trend in the past. Therefore, a 4-year CAGR of 7.15% has been considered appropriate for projecting the growth in Sales.

Commission's Views

The Commission notes that CSPDCL has projected sales of 363.06 MU for Public Utilities category as compared to sales of 314.49 MU approved in the MYT Order. The sales to this category consumers have increased at CAGR of 10.68% over the last five years, 7.15% over the last four years, 5.97% over the last three years, 5.73% over the last two years, and 10.01% year-on-year based on the actual sales for FY 2016-17.

The Commission has considered the 3-year CAGR of 5.97% for projection of sales over the estimated sales for FY 2017-18. The Commission has estimated sales to Public Utilities category at 382.72 MU for FY 2018-19.

LV 7: Temporary

CSPDCL's Submission

CSPDCL submitted that it has considered 5-year CAGR of 5% for projection of sales to the Temporary category.

Commission's Views

The Commission notes that CSPDCL has projected the sales of 669.54 MU to this category as compared to sales of 809.33 MU approved in the MYT Order. The sales to Temporary category have increased at CAGR of 32.49% over the last five years, 17.83% over the last four years, 24.74% over the last three years, 12.43% over the last two years, and 9.43% year-on-year based on the actual sales for FY 2016-17.

The Commission has considered the fixed CAGR of 10% for projection of sales over the estimated sales for FY 2017-18. The Commission has estimated sales to Temporary category at 842.41 MU for FY 2018-19.

HV 1: Railway Traction

CSPDCL's Submission

CSPDCL submitted that it has projected 2.74% growth for the Railway Traction category based on 5-Year CAGR.

Commission's Views

The Commission notes that CSPDCL has projected sales of 952.87 MU to Railway Traction category as compared to the sales of 946.41 MU approved in the MYT Order. The sales to this category have increased at CAGR of 2.74% over the last five years, 0.09% over the last four years, 2.54% over the last three years, 2.10% over the last two years, and 1.44% year-on-year based on the actual sales for FY 2016-17.

The Commission has accepted CSPDCL's assumption of CAGR of 2.74% for projection of sales for FY 2018-19. The Commission has estimated sales of 952.87 MU for FY 2018-19 for Railways.

HV 2: Mines

CSPDCL's Submission

CSPDCL submitted that it has considered the growth rate of 7.77% for the Mines category based on the weighted average of 3-year and 5-Year CAGR across different voltages.

Commission's Views

The sales to Mines category have increased at CAGR of 15.10% over the last five years, 15.87% over the last four years, 17.62% over the last three years, 23.69% over the last two years, and 41.53% year-on-year based on the actual sales for FY 2016-17.

The Commission has considered the 5-year CAGR of 15.10% for projection of sales over the estimated sales for FY 2017-18. The Commission has estimated sales to Mines category at 828.33 MU for FY 2018-19.

HV 3: Other Industrial & General Purpose Non-Industrial

CSPDCL's Submission

CSPDCL submitted that it has projected growth rate of 4.25% based on the weighted average of growth of 5-year CAGR across different voltages. CSPDCL projected the energy sales of 2,510.80 MU for FY 2018-19.

Commission's Views

The Commission notes that CSPDCL has projected sales of 2,510.80 MU to this category. The sales to this category have been increased at CAGR of 3.68% over the last five years, 2.14% over the last four years, -0.77% over the last three years, -10.49% over the last two years, and -17.33% year-on-year based on the actual sales for FY 2016-17.

The Commission has not considered any growth in this category as a negative growth has been witnessed in the recent years. Hence, the Commission has considered sales of 2,207.77 MU in this category, which is same as actual sales in FY 2016-17.

HV 4: Steel Industries

CSPDCL's Submission

CSPDCL submitted that it has projected increase of 4.27% based on the weighted average of fixed growth of 10% and 5-year CAGR across the different voltage categories. CSPDCL projected the energy sales of 4,518.11 MU for FY 2018-19.

Commission's Views

The Commission notes that CSPDCL has projected sales of 4,518.11 MU to this category as compared to the sales of 4,954.67 MU approved in the MYT Order. The sales to Steel category has increased at CAGR of 5.27% over the last five years, 8.01% over the last four years, 11.60% over the last three years, 10.94% over the last two years, and 9.08% year-on-year based on the actual sales for FY 2016-17.

In view of the higher growth rate in sales to this category in the recent past, the Commission has projected the sales to this category for FY 2018-19 on the basis

of 5-year CAGR of 5.27%. The Commission has also considered the sales to the upcoming NMDC Plant as per their schedule submitted before the Commission for FY 2018-19 under 220 kV category. The Commission has estimated sales to Steel category at 4,772.93 MU for FY 2018-19.

HV 5: Irrigation & Agriculture Allied Activities, Public Water Works

CSPDCL's Submission

CSPDCL submitted that the Irrigation & Agriculture Allied Activities and Public Water Works Category has recorded a 4-year CAGR of 1.91%, which has been considered for projecting sales to this category for FY 2018-19. CSPDCL has projected energy sales of 117.62 MU for FY 2018-19.

Commission's Views

The Commission has considered the 3-year CAGR of 2.68% for projection of sales over the actual sales for FY 2016-17. The Commission has estimated sales to HV-5 category at 119.41 MU for FY 2018-19.

HV 6: Residential

CSPDCL's Submission

CSPDCL submitted that residential category has recorded a 4-year CAGR of 0.77%, hence, it has considered the same growth rate for sales projection for FY 2018-19. CSPDCL projected the energy sales of 186.51 MU for FY 2018-19.

Commission's Views

The sales to HV 6 category have increased at CAGR of -0.91% over the last five years, 0.77% over the last four years, 1.15% over the last three years, 3.18% over the last two years, and 2.88% year-on-year based on the actual sales for FY 2016-17.

The Commission has considered the 3-year CAGR of 1.15% for projection of sales over the estimated sales for FY 2017-18. The Commission has estimated sales to HV-6 category at 187.93 MU for FY 2018-19.

HV 7: Start-up Power

CSPDCL's Submission

CSPDCL has considered 10% fixed growth for projecting the Sales to Start-up Power category. CSPDCL projected the energy sales of 144.49 MU for FY 2018-19.

Commission's Views

The Commission notes that CSPDCL has projected sales of 144.49 MU to this category as compared to sales of 33.24 MU approved in the MYT Order. The sales to HV-7 category have increased at CAGR of -0.83% over the last five years, 18.07% over the last four years, 59.59% over the last three years, 107.92% over the last two years, and 82.17% year-on-year based on the actual sales for FY 2016-17.

Since, the growth in the previous years is abnormally high and fluctuating, the Commission has considered a fixed growth rate of 10% for projecting the sales to this category. The Commission has estimated sales to HV-7 category at 144.49 MU for FY 2018-19.

HV 8: Industries related to manufacturing of equipment for power generation from renewable energy sources

CSPDCL's Submission

CSPDCL submitted that a normal increase of 10% has been considered for projecting the Sales to Industries related to manufacturing of equipment for power generation from renewable energy sources. CSPDCL projected energy sales of 2.49 MU for FY 2018-19.

Commission's Views

The Commission notes that CSPDCL has projected sales of 2.49 MU to this category as compared to the sales of 1.16 MU approved in the MYT Order. The Commission has accepted CSPDCL's projections of a 10% increase in sales to HV 8 category and accordingly estimated sales of 2.49 MU for FY 2018-19.

HV 10: Temporary Connection at HV

CSPDCL's Submission

CSPDCL has considered Nil growth for projecting the Sales to Temporary Category. CSPDCL projected energy sales of 3.74 MU for FY 2018-19.

Commission's Views

The Commission has accepted CSPDCL's projection of sales to this category in the absence of past data and has estimated sales of 3.74 MU for FY 2018-19.

The summary of category-wise sales for FY 2018-19 approved by the Commission in the MYT Order, estimated by CSPDCL, and approved in this Order is shown in the Table below:

Table 7-1: Consumer category-wise sales estimated by the Commission for FY 2018-19 (MU)

Particulars	MYT Order*	CSPDCL Petition	Approved in this Order
LV Category	**13803.51**	**12,600.56**	**12,454.79**
LV 1: Domestic Including BPL	6704.56	5,471.95	5,785.87
LV 2: Non-Domestic (Normal Tariff)	1065.36	930.40	915.37
LV 2.1: Non-Domestic (Demand Based Tariff)	78.01	41.11	47.36
LV 3: Agriculture – Metered	4319.00	4,541.96	3,905.34
LV 4: Agriculture - Allied Activities	17.65	19.61	15.34
LV 5: LT Industry	495.09	562.94	560.39
LV 6: Public Utilities	314.49	363.06	382.72
LV 7: IT Industries	0	-	-
LV 8: Temporary	809.33	669.54	842.41
HV Category	**4678.25**	**9,158.93**	**9,219.97**
HV 1: Railway Traction	946.41	952.87	952.87
HV 2: Mines	2244.17	722.31	828.33
HV 3: Other Industrial and General Purpose Non-Industrial	1606.48	2,510.80	2,207.77

Particulars	MYT Order*	CSPDCL Petition	Approved in this Order
HV 4: Steel Industries	4678.25	4,518.11	4,772.93
HV 5: Irrigation & Agriculture Allied Activities, Public Water Works	234.53	117.62	119.41
HV 6: Residential		186.51	187.93
HV 7: Start-up Power Tariff	33.24	144.49	144.49
HV 8: Industries related to manufacturing of equipment for RE power generation	1.16	2.49	2.49
HV 9: Information Technology Industries	-	-	-
HV 10: Temporary Connection at HV	-	3.74	3.74
Total Sales for FY 2018-19	**23,972.99**	**21,759.49**	**21,674.76**

Note - *In MYT Order, the energy sales of 72.55 MU was approved for HV – Low Load Factor consumer category, which was subsequently merged with respective category based on purpose and voltage.

Similarly, the Commission has estimated the category wise number of consumers and load based on the analysis of past growth trend as done for sales projections. Further, the category-wise number of consumers and load estimated by the Commission for FY 2018-19 is shown in the following Table:

Table 7-2: Category-wise Consumers and load as estimated by Commission

Particulars	No. of consumers	Load (MW)
LV Category	52,51,759	6,149.14
LV 1: Domestic Including BPL	42,83,963	3,100.94
LV 2: Non-Domestic (Normal Tariff)	3,34,475	792.04
LV 2.1: Non-Domestic (Demand Based Tariff)	989	31.47
LV 3: Agriculture – Metered	4,43,342	1,187.59
LV 4: Agriculture - Allied Activities	2,693	16.27
LV 5: LT Industry	34,338	632.21
LV 6: Public Utilities	31,412	117.72
LV 7: IT Industries	-	-
LV 8: Temporary	1,20,547	270.91

Particulars	No. of consumers	Load (MW)
HV Category	3,066	2,903.58
HV 1: Railway Traction	21	347.09
HV 2: Mines	118	208.34
HV 3: Other Industrial and General Purpose Non-Industrial	2,282	980.78
HV 4: Steel Industries	376	1,216.24
HV 5: Irrigation & Agriculture Allied Activities, Public Water Works	170	40.88
HV 6: Residential	56	49.93
HV 7: Start-up Power Tariff	38	53.53
HV 8: Industries related to manufacturing of equipment for RE power generation	1	1.00
HV 9: Information Technology Industries	-	-
HV 10: Temporary Connection at HV	4	5.78

7.3 Distribution Loss and Energy Balance

CSPDCL's Submission

CSPDCL submitted that it has considered Intra-state transmission loss of 3.22% as approved in the MYT Order. CSPDCL has considered the inter-State transmission losses of 3.63%, which is the weighted average transmission loss of actual last 12 months of Western Region. CSPDCL has considered distribution loss of 20% as specified in Regulation 71 of the MYT Regulations, 2015.

Commission's Views

As discussed in earlier Chapter of this Order, the Commission has considered the Distribution loss of 16.50% for FY 2018-19 for below 33 kV system as per the targets set under UDAY scheme. The Commission has considered the intra-State Transmission loss of 3.22% as approved in the MYT Order and inter-State transmission loss of 3.66% for FY 2018-19, which is the average of the actual loss for April 2016 to March 2017. The Energy Balance approved by the Commission for FY 2018-19 is shown in the following Table:

Table 7-3: Energy Balance approved by the Commission for FY 2018-19

Particulars	Formula	MYT Order	CSPDCL Petition	Approved in this Order
LV Sales	A	12,441	12,601	12,455
HV Sales (11 kV & 33 kV)	B	6,422	6,417	6,356
Sub-total	**C=A+B**	**18,863**	**19,018**	**18,811**
Distribution Loss below 33 kV (%)	**D**	**21.00%**	**20.00%**	**16.50%**
Distribution Loss below 33 kV (MU)	E	5,014	4,754	3,717
Gross Energy requirement at 33 kV level	F=C+E	23,877	23,772	22,528
Less: Direct Input to distribution at 33 kV level	G	1,625	257	257
Net Energy Input required at Distribution Periphery at 33 kV level	H=F-G	22,252	23,515	22,271
Sales to HV consumers (132 kV & 220 kV)	I	2,928	2,742	2,864
Net Energy requirement at Distribution periphery	**J=H+I**	**25,180**	**26,257**	**25,135**
Distribution loss including EHV Sales	K	18.71%	17.93%	14.64%
Intra-State Transmission loss (in %)	L	3.22%	3.22%	3.22%
Intra-State Transmission loss (in MU)	M	838	874	836
Net energy requirement at Transmission periphery	**N=J+M**	**26,018**	**27,130**	**25,971**

7.4 Power Purchase Expenses

CSPDCL's Submission

CSPDCL submitted that it has broadly categorised the sources of energy into Generation from CSPGCL, Allocation (firm and non-firm) from CGS, Captive Power Plants (CPPs), Independent Power Producers (IPPs), Biomass, and Solar Power Plants and Short-Term/UI/Bilateral purchases, etc. CSPDCL has projected the purchase of power from various sources as detailed below:

Power Purchase from Central Generating Stations

CSPDCL submitted that it has firm allocation of power from CGS like Korba Super Thermal Power Station (STPS), Vindhyachal Thermal Power Station, Sipat Super Thermal Power Station, Kahalgaon Super Thermal Power Station, Mauda Super Thermal Power Station, Solapur Super Thermal Power Station, and Tarapur Atomic Power Stations, to meet its energy requirement.

The power purchase cost comprises fixed charges and energy charges for stations having two-part tariff, i.e., NTPC, NPCL and others. CSPDCL has considered the average energy charge (excluding FCA) of the latest six months (April 2017 to September 2017) for projecting the energy charge for FY 2018-19. The fixed charges have been considered as per the latest Tariff Orders issued by the Central Electricity Regulatory Commission (CERC). CSPDCL, while estimating the costs, has considered only the fixed charge and energy charge and has estimated that any cost over and above the same would be passed though on actual basis.

CSPDCL estimated the gross energy availability from the existing stations based on the allocated capacity and the average Plant Load Factor (PLF) for the past five years, i.e., from FY 2012-13 to FY 2016-17 (till August). The same has been considered for FY 2018-19 for calculating the gross energy availability for the State. For the recently commissioned stations, CSPDCL has considered PLF of 80%.

CSPDCL submitted that the expected commissioning date of upcoming Lara STPS Units I and II are April 1, 2018 and September 1, 2018 respectively. CSPDCL has submitted that while estimating the power purchase cost for FY 2018-19 from Lara, it has considered the average power purchase cost at Rs. 3.90/kWh (equivalent to Marwa TPS).

The summary of the power purchase quantum and cost as submitted by CSPDCL for CGS is shown in the Table below:

Table 7-4: Power Purchase from CGS for FY 2018-19 as projected by CSPDCL

Source	Units Purchased (MU)	Fixed Cost (Rs. crore)	Variable Cost (Rs. crore)	Total Cost (Rs. crore)
Korba STPS	1,507.71	79.31	202.56	281.87
Korba STPS Unit VII	550.24	73.38	70.28	143.65
Vindhyachal	1,356.10	196.63	201.33	397.96
Sipat STPS	3,139.67	426.13	384.56	810.68
Mauda STPS	984.51	140.40	262.81	403.21
NTPC - SAIL (NSPCL)	297.95	52.71	46.41	99.12
Lara STPS	4,143.32	-	1,615.90	1,615.90
Unit I	*2,620.99*	-	*1,022.19*	*1,022.19*
Unit II	*1,522.33*	-	*593.71*	*593.71*
Solapur STPS	520.59	19.63	128.09	147.72
Kahalgaon STPS	182.63	22.99	44.41	67.40
Tarapur (Unit 3 & 4)	303.97	-	93.30	93.30
Hirakud (OHPCL)	13.95	-	2.87	2.87
Total Central Generating Stations	**13,000.64**	**1,011.17**	**3,052.51**	**4,063.68**

Power Purchase from State Generating Stations

CSPDCL submitted that it has allocation of 3,312.20 MW from CSPGCL. CSPDCL, while estimating the costs, has considered the fixed charges as approved by the Commission in the MYT Order. CSPDCL has considered the average energy charge (excluding FCA) of the latest six months (April 2017 to September 2017) for projecting the energy charge for FY 2018-19 and has estimated that any cost over and above would be passed through on actual basis.

CSPDCL has submitted that for projecting the quantum of energy purchased from each State Generating Station, it has considered PLF as approved by the Commission in the MYT Order for FY 2018-19.

For State Hydro and Co-generation Plant of CSPGCL, it has considered the latest Tariff Order of the Commission and cost as per latest figures available for the last 6 months (April 2017 to September 2017). CSPDCL submitted that it has considered sale of the power from Marwa to Telangana at State periphery for FY 2018-19 under back-to-back arrangement without any trading margin at the rate approved by the Commission, i.e., Rs 3.90 /kWh.

The total quantum and cost of power purchase from CSPGCL is shown below:

Table 7-5: Power Purchase from CSPGCL for FY 2018-19 as submitted by CSPDCL

Source	Units Purchased (MU)	Fixed Cost (Rs crore)	Variable Cost (Rs crore)	Total Cost (Rs crore)
KTPS – East	1,714.28	352.29	330.34	682.63
DSPM	3,387.93	500.65	523.44	1,024.09
Hasdeo TPS	4,942.28	591.84	734.92	1,326.76
KTPS- West	3,527.54	711.18	445.88	1,157.06
Marwa	7,055.09	-	2,751.48	2,751.48
HPS Bango	271.26	-	25.01	25.01
HPS Korba Mini Hydro	4.38	-	1.67	1.67
HPS Gangrel	25.75	-	9.48	9.48
HPS Sikaser	24.04	-	6.46	6.46
Co-Gen Kawardha	47.70	-	22.75	22.75
Total State Generating Stations	**21,000.24**	**2,155.96**	**4,851.42**	**7,007.38**

Power Purchase from Renewable Sources

CSPDCL submitted that the Commission in CSERC (Renewable Purchase Obligation and REC Framework Implementation) Regulations, 2013, has specified the trajectory for RPO compliance till FY 2015-16. Further, the Commission, in MYT Order, has increased Solar RPO by 0.50% for FY 2016-17. CSPDCL has considered the same percentage of total consumption for meeting RPO from FY 2018-19 with an increase of 0.50% in Solar, as shown in the following Table:

Table 7-6: Minimum quantum of electricity to be procured through Renewable Energy Sources

Particulars	FY 2018-19
Solar	1.50%
Bio Mass	3.75%
Other RE (Hydro, Wind, Co-generation etc.)	2.50%

CSPDCL submitted that it has purchased solar power from SECI in FY 2016-17 and proposed to meet Solar Obligation from physical power only. The power purchase from Solar has been estimated at the cost of Rs. 6.50/kWh for the entire Control Period, whereas the power purchase from biomass and other RE has been estimated @ Rs. 5.50/kWh and Rs. 5.00/kWh in FY 2017-18 and FY 2018-19, respectively. Based on the above, the quantum of Renewable Energy required to be purchased by CSPDCL in FY 2018-19 is shown in the following Table:

Table 7-7: Purchase of RE in FY 2018-19 as projected by CSPDCL

Source	Units Purchased (MU)	Fixed Cost (Rs crore)	Variable Cost (Rs crore)	Total Cost (Rs crore)
Bio-mass	946.57	-	520.61	520.61
Solar	530.28	-	344.68	344.68
Hydel/Other RE	346.30	-	173.15	173.15
Total Renewables	**1,823.15**	**-**	**1,038.44**	**1,038.44**

Power Purchase from Concessional Sources

CSPDCL submitted that it has projected availability from concessional sources of power purchase as per current availability @ Rs 1.90/kWh and Rs 2.00/kWh during FY 2018-19 as shown in the following Table:

Table 7-8: Concessional Power Purchase as projected by CSPDCL for FY 2018-19

Source	Units Purchased (MU)	Fixed Cost (Rs. crore)	Variable Cost (Rs. crore)	Total Cost (Rs. crore)
At Rate of Rs. 2.00/kWh	112.13	-	22.43	22.43
At Rate of Rs. 1.90/kWh	2,404.80	-	456.91	456.91
Total Concessional Power	**2,516.92**	**-**	**479.34**	**479.34**

Power Purchase from Short-Term Sources

CSPDCL submitted that while there is estimated net surplus of power, as seen from past trends, there is still a shortage of power during certain durations of day/month/year. Accordingly, CSPDCL submitted that it has considered short-term purchase of 100 MU from Power Exchange and availability of 600 MU from unscheduled sources and requested the Commission to approve the same for FY 2018-19 as shown in the following Table:

Table 7-9: Short-term Power Purchase as projected by CSPDCL for FY 2018-19

Source	Units Purchased (MU)	Fixed Cost (Rs crore)	Variable Cost (Rs crore)	Total Cost (Rs crore)
IEX/PXIL/Traders (Short Term Purchase)	100.00	-	32.50	32.50
Unscheduled sources	600.00	-	96.00	96.00
Total Short-Term Purchase	**700.00**	**-**	**128.50**	**128.50**

Transmission Charges – Inter-State, Intra-State and CSLDC Charges

CSPDCL has to pay Transmission Charges to PGCIL for use of transmission facilities enabling power drawal from Western and Eastern region. The PGCIL Charges have been calculated as per prevailing CERC Regulations for Point of Connection (PoC) rates and transmission losses and are as per latest CERC Order No. L-1/44/2010-CERC dated October 31, 2017.

Further, CSPDCL submitted that it has considered intra-State Transmission Charges and CSLDC charges as approved by the Commission in the MYT Order.

Inter-State Sale

CSPDCL has considered the sale of power from Marwa at State periphery at Rs. 3.90/kWh and the sale of balance surplus power has been estimated at Rs 3.35/kWh (as approved by the Commission in the MYT Order) for FY 2018-19. CSPDCL submitted that the sale of electricity other than to retail consumers is not within the regulatory purview of the Commission. As electricity cannot be stored, the surplus energy has to be sold as and when available at the market realised rates. The availability of surplus energy is dependent on the consumption of the consumers and not on the Licensee. The surplus energy is always ensured to be

sold with the objective of maximising the revenue from such sale and to pass on the accrued benefit to the retail consumers.

Commission's View

The details submitted by CSPDCL have been analysed in detail and additional information was asked on the same. The Commission has approved the Power Purchase expenses for FY 2018-19 in the following manner:

(a) The quantum of purchase from CGS has been considered same as submitted by CSPDCL. The fixed charges for such CGS have been considered based on latest applicable CERC Order.

(b) The purchase from Lara STPS has been considered same as proposed by CSPDCL. It may be noted that the Power Purchase Agreement (PPA) between CSPDCL and NTPC-Lara is under consideration before the Commission. The Commission clarifies that the inclusion of this quantum of energy in the power purchase of CSPDCL does not imply de-facto approval for the PPA.

(c) The actual rates of power purchase from different sources of power, other than CSPGCL, in the first 5 months of FY 2017-18, i.e., April to August, 2017, have been considered as the base rate of power purchase in FY 2017-18.

(d) An increase of 5% has been considered on the above rates, and any further variation in rates will be adjusted through the FCA and VCA mechanism. However, no escalation in energy charge has been considered for power purchased from State Generating Stations. The energy charge rate as approved by the Commission for CSPGCL in the Tariff Order for FY 2017-18 has been considered for projecting the power purchase expenses for FY 2018-19.

(e) The RPO percentage has been considered in accordance with the CSERC (RPO and REC Framework Implementation) Regulations, 2016 notified on December 1, 2016. The following RPO percentages are applicable on the quantum of sales to LV, HV and EHV categories for CSPDCL in FY 2018-19:

Year	Solar	Non-Solar	Total
FY 2018-19	3.50%	7.50%	11.00%

(f) The quantum of purchase of RE has been considered based on the actual purchase in FY 2016-17. The shortfall in Solar and Non-solar RE purchase has been considered as being met through purchase of Renewable Energy Certificates (RECs) at the floor rates of Re. 1.00 per kWh and Rs. 1.50 per kWh for Solar and Non-Solar REC, respectively.

(g) The purchase of concessional power from various sources of power purchase has been provisionally estimated at an average rate of Rs. 1.80 per kWh. The Petition for determination of the rate for such purchase is presently under consideration of the Commission, and any variation between the estimated average rate and the approved billing rate shall be passed through/recovered, as the case may be.

(h) To meet the demand-supply gap, the Commission has considered short-term purchase of 2100 MU at rate of Rs. 3.41/kWh and 600 MU at rate of 1.68/kWh from unscheduled sources.

(i) The Commission has accepted CSPDCL's proposal of selling the Power generated by Marwa to Telangana. The Commission has estimated the sale of power to Telangana at rate of Rs. 3.97/kWh, after taking into account the trading margin of 7 paise/kWh, as considered in the Tariff Order for FY 2017-18. It may be worthy to mention here that the energy charge rate as approved in Tariff Order for FY 2016-17 has not been revised or re-determined and any variation in fuel cost has to be passed on to ultimate buyer of power.

(j) As regards the sale of surplus power, the Commission notes that CSPDCL sold energy quantum of 2789 MU at rate of Rs. 3.72/kWh in FY 2016-17. The estimated quantum of power to be sold during FY 2018-19 is higher than the actual quantum sold in FY 2016-17. The sale of surplus power for such increased quantum at rate of Rs. 3.72/kWh may not be possible considering the changing market scenario. The Commission has estimated the lower energy rate for such quantum of sale of surplus power. Hence, the Commission has estimated the sale of surplus power at weighted average rate of 3.20/kWh, for FY 2018-19. The actual quantum and rate of sale of surplus power shall be considered at the time of truing up for FY 2018-19. On the legal point raised by CSPDCL that sale of surplus power of Distribution Licensee does not come within the purview of the Commission, CSPDCL is advised to go through the Judgments pronounced by Hon'ble APTEL on the jurisdiction of sale of surplus

power of the Distribution Licensee. CSPDCL has raised this issue before Hon'ble APTEL and this issue of jurisdiction of CSERC has already been settled, but it is unfortunate to note that CSPDCL tries to repeatedly remind the Commission in its Tariff Petitions regarding the jurisdiction, thereby ignoring and having disregard to Judgments of Hon'ble APTEL.

(k) The inter-State transmission charges payable to PGCIL have been accepted as approved by the Commission in MYT Order for FY 2018-19.

(l) The intra-State transmission charges have been considered based on the ARR of CSPTCL for FY 2018-19, approved in the MYT Order.

(m) The CSLDC charges have been considered based on the ARR of CSLDC for FY 2018-19, approved in the MYT Order.

The summary of power purchase cost for FY 2018-19 as submitted by CSPDCL and approved by the Commission in this Order, is shown in the Table below:

Table 7-10: Power Purchase Cost approved by the Commission for FY 2018-19

Sr. No.	Particulars	MYT Order			CSPDCL Petition			Approved in this Order		
		Units (MU)	Total Cost (Rs crore)	Rs/ kWh	Units (MU)	Total Cost (Rs crore)	Rs/ kWh	Units (MU)	Total Cost (Rs crore)	Rs/ kWh
1	**Central Generating Stations**	**15479.11**	**4772.54**	**3.08**	**13,000.64**	**4,063.68**	**3.13**	**12,133.56**	**3,783.45**	**3.12**
a	*NTPC*	14354.53	4413.46	3.07	*12,384.77*	*3,868.40*	*3.12*	*11,517.69*	*3,581.04*	*3.11*
b	*NTPC - SAIL (NSPCL)*	322.76	131.20	4.06	*297.95*	*99.12*	*3.33*	*297.95*	*101.44*	*3.40*
c	*NPCIL*	787.94	225.79	2.87	*303.97*	*93.30*	*3.07*	*303.97*	*97.96*	*3.22*
d	*Others*	13.88	2.08	1.50	*13.95*	*2.87*	*2.05*	*13.95*	*3.01*	*2.16*
2	**State Generating Stations**	**13535.93**	**3758.01**	**2.77**	**21,000.24**	**7,007.38**	**3.34**	**20,971.46**	**6,993.66**	**3.33**
a	*CSPGCL – Thermal*	13439.01	3755.22	2.79	*20,627.11*	*6,942.02*	*3.37*	*20,898.37*	*6,967.03*	*3.33*
b	*CSPGCL – Renewables*	*96.92*	*45.51*	*4.71*	*373.13*	*65.36*	*1.75*	*73.09*	*26.63*	*3.64*
3	**Short Term Purchase**	**1245.28**	**435.85**	**3.50**	**700.00**	**128.50**	**1.84**	**2,700.00**	**817.43**	**3.03**
4	**Concessional Power - Through CSPTrdCL**	**2154.96**	**410.39**	**1.90**	**2,516.92**	**479.34**	**1.90**	**2516.92**	**455.29**	**1.78**
5	**Others – Renewables**				**1,823.15**	**1,038.44**	**5.70**	**1,208.58**	**920.72**	**7.62**
a	*Biomass*	*1063.35*	*584.84*	*5.50*	*946.57*	*520.61*	*5.50*	*911.31*	*541.02*	*5.94*
b	*Solar*	*296.17*	*192.51*	*6.51*	*530.28*	*344.68*	*6.50*	*290.66*	*138.84*	*4.78*
c	*Hydel/Other RE*	*429.89*	*214.94*	*5.00*	*346.30*	*173.15*	*5.00*	*6.61*	*4.56*	*6.89*

Sr. No.	Particulars	MYT Order			CSPDCL Petition			Approved in this Order		
		Units (MU)	Total Cost (Rs crore)	Rs/ kWh	Units (MU)	Total Cost (Rs crore)	Rs/ kWh	Units (MU)	Total Cost (Rs crore)	Rs/ kWh
d	*Solar RECs*	-	-	-	-	-	-	-	*66.57*	-
E	*Non-Solar RECs*	-	-	-	-	-	-	-	*169.73*	-
6	**Transmission Charges**					**1,414.39**			**1349.88**	
A	*Inter-State Transmission Charges*		*341.63*			*406.14*			*341.63*	
b	*Intra-State Transmission Charges*		*993.46*			*993.46*			*993.46*	
c	*CSLDC Charges*		*14.79*			*14.79*			*14.79*	
7	**Gross Power Purchase Cost**	**34204.70**	**11761.68**	**3.44**	**39,040.95**	**14,131.73**	**3.62**	**39,530.52**	**14,320.42**	**3.62**
8	*Less: Sale of Surplus Power*	*3529.08*	*1182.24*	*3.35*	*12,055.77*	*4,414.22*	*3.66*	*6,337.19*	*2,030.17*	*3.20*
	Less: Sale to Telangana		*48.99*					*6,827.91*	*2,710.68*	*3.97*
9	**Net Power Purchase Cost**	**34204.70**	**10530.45**	**3.08**	**26,985.18**	**9,717.51**	**360**	**26,365.43**	**9,579.57**	**3.63**

7.5 Non-Tariff Income for FY 2018-19

Commission's View

The Commission has re-determined the Non-Tariff Income for FY 2018-19 as Rs. 247.72 Crore after applying escalation of 15% on the actual Non-Tariff Income of Rs. 187.31 Crore for FY 2016-17.

7.6 Revised ARR for FY 2018-19

Based on the above, the revised ARR approved by the Commission for FY 2018-19 is shown in the Table below:

Table 7-11: ARR approved by the Commission for FY 2018-19 (Rs. Crore)

Sr. No	Particulars	FY 2018-19		
		MYT Order	CSPDCL Petition	Approved in this Order
A	**Power Purchase Expenses**	**11,761.68**	**14,131.73**	**14,320.42**
1	*Power Purchase Cost*	*10,411.80*	*12,717.34*	*12,970.54*
2	*Inter-State Transmission charges (PGCIL)*	*341.63*	*406.14*	*341.63*
3	*Intra-State Transmission Charges*	*993.46*	*993.46*	*993.46*
4	*CSLDC Charges*	*14.79*	*14.79*	*14.79*
B	**Operation & Maintenance Expenses**	**1,610.39**	**1,610.39**	**1,610.39**
1	*Net Employee Expenses*	*892.80*	*892.80*	*892.80*
2	*Net Administrative and General Expenses*	*154.48*	*154.48*	*154.48*
3	*Net Repair and Maintenance charges*	*143.57*	*143.57*	*143.57*
4	*Terminal Benefits (Pension & Gratuity)*	*355.31*	*355.31*	*355.31*
5	*Interim Wage Relief*	*64.23*	*64.23*	*64.23*
C	**Interest & Finance Expenses**	**158.92**	**114.37**	**158.92**
1	Interest on Loan	96.39	96.39	96.39
2	Interest on Security Deposit	109.13	110.23	109.13
3	Interest on Working Capital	(46.60)	(92.25)	(46.60)
D	**Other Expenses**	**136.22**	**136.22**	**136.22**
1	Depreciation	136.22	136.22	136.22
E	**Gross Expenditure (A+B+C+D)**	**13,667.21**	**15,992.71**	**16,225.95**
F	**Return on Equity**	**234.45**	**234.45**	**234.45**
G	**Gross ARR (E+F)**	**13,901.66**	**16,227.16**	**16,460.40**

Sr. No	Particulars	FY 2018-19		
		MYT Order	CSPDCL Petition	Approved in this Order
H	**Less: Other Income**	**1,621.85**	**4,804.84**	**5,074.26**
1	*Non-Tariff Income*	*304.93*	*304.93*	*247.72*
2	*Trading of Electricity*	*1,231.23*	*4,414.22*	*4,740.85*
3	*Wheeling Charges, Open Access & Cross Subsidy Charges*	*85.69*	*85.69*	*85.69*
G	**Net Annual Revenue Requirement**	**12,279.81**	**11,422.33**	**11,386.14**

7.7 Revenue at existing tariff

CSPDCL's Submission

CSPDCL submitted that it has computed Revenue from Sale of Power for FY 2018-19 based on the tariff determined by the Commission in the Tariff Order for FY 2017-18. CSPDCL has estimated the Revenue from sale of electricity at existing tariff as Rs. 13,898.54 Crore.

Commission's View

The Commission has estimated the revenue from sale of electricity at existing tariff as Rs. 13,963.80 Crore, on the basis of the prevailing tariff and applicable terms and conditions as specified in the Tariff Schedule for each consumer category, and the category-wise sales projected by the Commission, as discussed earlier.

7.8 Standalone Revenue Gap/(Surplus)

Based on the estimation of ARR and Revenue at existing tariff, the standalone Revenue Gap/Surplus for FY 2018-19 approved by the Commission is shown in the Table below:

Table 7-12: Standalone Revenue Gap/(Surplus) approved by the Commission for FY 2018-19 (Rs. Crore)

Sl.	Particulars	CSPDCL's Petition	Approved in this Order
1	Aggregate Revenue Requirement	11,422.33	11,386.14
2	Income from sale of Power at Existing Tariff	13,898.54	13,963.80
3	Standalone Revenue Gap/(Surplus)	2,476.22	(2,577.66)

8 TARIFF PRINCIPLES AND DESIGN

8.1 Cumulative Revenue Gap/(Surplus) for FY 2018-19

CSPDCL's Submission

CSPDCL submitted that there is net standalone Revenue Surplus of Rs. 2,476.22 Crore in FY 2018-19. However, considering the net Revenue Gap of Rs. 2,584.89 Crore (Revenue Gap of Rs. 2,297.68 Crore plus carrying cost) carried forward after provisional true-up for FY 2016-17, there is an overall net Revenue Gap of Rs. 108.68 Crore in FY 2018-19.

Commission's View

The Commission notes that CSPDCL has not factored in the impact of the Revenue Gap/(Surplus) of CSPGCL, CSPTCL and CSLDC, arising after provisional true-up for FY 2016-17 in the revised ARR for FY 2018-19, as CSPDCL has adjusted the same in the provisional true-up for FY 2016-17 itself. As elaborated earlier in the Provisional true-up, the Commission has not adjusted the same in the provisional true-up for FY 2016-17. The Commission has adjusted the Revenue Gap/(Surplus) of CSPDCL, CSPGCL, CSPTCL and CSLDC after provisional true-up for FY 2016-17 including carrying cost, as approved in earlier Chapters of this Order, in the revised ARR for FY 2018-19 for CSDPCL, to arrive at net ARR for tariff recovery.

The cumulative Revenue Gap approved by the Commission for CSPDCL for FY 2018-19, after considering all the above Revenue Gap/(Surplus) of CSPDCL, CSPGCL, CSPTCL, and SLDC for FY 2016-17, is shown in the Table below:

Table 8.1-1: Approved Cumulative Revenue Gap/(Surplus) for FY 2018-19

Sl.	Particulars	CSPDCL Petition	Approved
1	Standalone Revenue Gap/(Surplus) for CSPDCL	(2,476.21)	(2,577.66)
2	Revenue Gap/(Surplus) for CSPDCL for FY 2016-17 including carrying cost	2,584.89	2,357.60
3	Revenue Gap/(Surplus) for CSPGCL for FY 2016-17 including carrying cost	-	(279.52)
4	Revenue Gap/(Surplus) for CSPTCL for FY 2016-17 including carrying cost	-	(29.98)
5	Revenue Gap/(Surplus) for CSLDC for FY 2016-17 including carrying cost	-	(1.26)
6	**Cumulative Revenue Gap/(Surplus)**	**108.68**	**(530.83)**

Thus, the Commission has determined a cumulative Revenue Surplus of Rs. 530.83 crore for FY 2018-19, as against the cumulative Revenue Gap of Rs. 108.68 crore projected by CSPDCL. The treatment of this Revenue Surplus is elaborated in subsequent paragraphs.

The Average Cost of Supply (ACoS) approved by the Commission for FY 2018-19 is shown in the Table below:

Table 8.1-2: Approved Average Cost of Supply for FY 2018-19

Particulars	Approved
ARR for FY 2018-19 (Rs. Crore)	11,386.14
Total Estimated Sales for FY 2017-18 (MU)	21,674.76
Average Cost of Supply (Rs./kWh)	**5.25**
Adjusted ARR for FY 2018-19 after considering the Cumulative Revenue Gap/(Surplus) (Rs. Crore)	13,432.98
Average Cost of Supply on adjusted ARR (Rs./kWh)	**6.20**

8.2 Voltage-wise Cost of Supply (VCOS)

CSPDCL's Submission

CSPDCL submitted that the Hon'ble APTEL in its Judgment in Appeal No 102 of 2010 dated May 30, 2011 has opined that embedded cost approach requires a detailed database of information regarding voltage of supply, power factor, load factor, time of use of electricity, quantity of electricity consumed, AT&C losses, etc. Most of the above-mentioned information is not readily available and taking into account the difficulties faced by SERCs, the Hon'ble APTEL has suggested that, in absence of adequate data, it would be appropriate to determine the Voltage-wise cost of supply (VCoS) taking into account the major cost element which would be applicable to all the categories of consumers connected to the same voltage level.

CSPDCL further submitted that the Hon'ble APTEL has concluded that the mandate of the Tariff Policy to limit cross subsidies within (+/-) 20% of the ACoS can be applied to determine the category-wise retail supply tariff. However, determination of VCoS is required to evaluate cross subsidies prevalent at various voltages. In the absence of detailed study or requisite data, the Hon'ble APTEL has further advised that the power purchase cost, which is the major component of the Discom's costs, can be apportioned to different voltage levels in proportion to the sale and losses at the respective voltage levels. As regards the other costs such as Return on Equity,

Interest on Loan, depreciation, Interest on Working Capital and O&M costs, these costs can be pooled and apportioned equitably on pro-rata basis to all voltage levels.

The Commission in previous Tariff Order has directed CSPDCL to compute the VCoS to ensure that the tariff progressively reflects the cost of supply and cross-subsidy is reduced within a specific period. CSPDCL submitted that the MYT Regulations, 2015, which specifies the distribution loss trajectory, do not provide segregation of normative losses into voltage-wise technical and commercial losses. The determination of voltage-wise losses would require detailed technical studies of the Distribution network, which would require time, efforts, etc.

Based on the approach described by the Hon'ble APTEL, CSPDCL using different factors and assumptions, has computed the VCoS as under:

(a) As a first step in the direction of working out category-wise cross subsidy based on VCoS, CSPDCL has attempted to determine the same based on Hon'ble APTEL Judgement. The category-wise cross subsidy thus worked out is indicative in nature, not accurate and based on sample feeder-wise data, as the base data for the same needs to be duly culled out based on actual details.

(b) VCoS has been computed for above 33 kV and below 33 kV and 11 kV (inclusive of LT) categories only, as 11 kV sales are bare minimum.

(c) Methodology of allocation of losses as well as costs is as per the last Tariff Order issued by the Commission.

(d) Total technical losses at EHV and 33 kV levels have been considered the same as approved by the Commission.

CSPDCL submitted the VCoS for FY 2018-19 as shown in the following Table:

Table 8.2-1: Voltage-wise Cost of Supply for FY 2018-19 as submitted by CSPDCL

Sl.	Particulars	UoM	EHV	33 kV	11 kV and LV	Total
1	Energy Sales	MU	-	6,150.99	12,866.66	19,017.65
2	Distribution Loss	%	-	4.85%	25.66%	20.00%
3	Distribution Loss	MU	-	313.53	4,440.88	4,754.41
4	Energy requirement at 33 kV	MU	-	6,464.52	17,307.54	23,772.06
5	Energy injected into Distribution system at 33/kV	MU	-	69.93	187.22	257.15
6	Net Energy requirement at 33 kV Level	MU	-	6,394.60	17,120.32	23,514.91
7	EHV Sales	MU	2,741.84	-	-	2,741.84

Sl.	Particulars	UoM	EHV	33 kV	11 kV and LV	Total
8	Energy requirement for Distribution	MU	2,741.84	6,394.60	17,120.32	26,256.75
9	Transmission Loss	%	3.22%	3.22%	3.22%	
10	Energy requirement at G<>T Interface	MU	2,833.07	6,607.35	17,689.93	27,130.35
11	Avg. Power Purchase Cost Rate	Rs./kWh	3.58	3.58	3.58	
12	Power Purchase Cost	Rs crore	1,014.74	2,366.61	6,336.16	9,717.51
13	Other Cost	Rs crore	178.02	415.19	1,111.60	1,704.81
14	Gap Cost for only for FY 17 including Past Gaps as per latest petition	Rs crore	269.93	629.53	1,685.44	2,584.89
15	Total Cost	Rs crore	1,462.69	3,411.33	9,133.19	14,007.22
16	Energy Sales	MU	2,741.84	6,150.99	12,866.66	21,759.49
17	**Voltage Wise Cost to Serve**	**Rs/kWh**	**5.33**	**5.55**	**7.10**	**6.44**

Commission's View

As discussed in the Tariff Order for FY 2017-18, the Commission has noted the ruling of the Hon'ble APTEL in its Judgment dated March 24, 2015 in Appeal No. 103 of 2012, on the issue of determination of tariff and cross-subsidy with reference to the VCoS.

The Commission has taken due cognisance of the submissions of CSPDCL. It has been observed that CSPDCL has computed VCoS for FY 2018-19 in line with the approach adopted by the Commission in previous year's Tariff Order. Further, CSPDCL submitted that the determination of voltage-wise losses requires detailed technical studies of distribution system, which would require time. The Commission notes that at present, the voltage-wise losses available are based on certain assumptions. The actual voltage-wise losses would be available only after the studies carried out by CSPDCL. In view of the above, the Commission determines the VCoS on the basis of available data.

Further, the framework prescribed by the Hon'ble APTEL requires that the category-wise tariffs be determined on the basis of ACoS as well as VCoS, and also that the tariffs for all categories should be within ±20% of the overall ACoS for the Distribution Licensee. The Commission feels that in the absence of a realistic assessment of the voltage-wise losses, the determination of VCoS may lead to incorrect conclusions. However, the Hon'ble APTEL has directed that the tariffs and

cross-subsidies have to be determined keeping in view the VCoS, while ensuring that the tariffs are within ±20% of ACoS. Further, there is no denying that the cost of supply at higher voltages, i.e., 220 kV, 132 kV, etc., will be lower than the cost of supply at lower voltages, i.e., LT, 11 kV, etc., on account of the lower distribution losses at higher voltages and non-utilisation of the assets at lower voltages for supplying electricity to the consumers at higher voltages.

Hence, in this Order, the Commission has determined the category-wise tariffs on the basis of ACoS, while at the same time moving towards the philosophy that the tariffs for the consumers taking supply at higher voltages is lower than that for consumers taking supply at lower voltages. However, due to historical reasons, this objective cannot be achieved immediately, and hence, the gradual movement initiated in the MYT Order has been carried forward in this Order.

The VCoS for FY 2018-19, as estimated by the Commission based on approved ARR and available data, is given in the Table below:

Table 8.2-2: VCOS for FY 2018-19 as calculated by Commission

Sr. No.	Particulars	Units	FY 2018-19			
			EHV	33 kV	11 kV and LV	Total
1	Energy Sales	MU	-	5,705.57	13,105.19	18,810.75
2	Distribution Loss	%	-	4.85%	20.73%	16.50%
3	Energy input at 33 kV	MU	-	5,996.39	16,531.46	22,527.85
4	Less: Direct input to Distribution at 33/11 kV	MU		69.93	187.22	257.15
5	Energy input at Discom level	MU		5,926.46	16,344.24	22,270.70
6	EHV Sales	MU	2,864.01	-	-	2,864.01
7	Energy requirement for Distribution	MU	2,864.01	5,926.46	16,344.24	25,134.71
8	Transmission Loss	%	3.22%	3.22%	3.22%	3.22%
9	Energy requirement at G<>T Interface	MU	2,959.30	6,123.64	16,888.03	25,970.97
10	Avg. Power Purchase Cost Rate	Rs./kWh	3.69	3.69	3.69	3.69
11	Power Purchase Cost	Rs. Crore	1,091.56	2,258.75	6,229.26	9,579.57
12	Other Cost	Rs. Crore	439.08	908.59	2,505.74	3,853.41
13	Total Cost	Rs. Crore	1,530.64	3,167.33	8,735.00	13,432.98
14	Energy Sales	MU	2,864.01	5,705.57	13,105.19	21,674.76
15	**Cost of Supply**	**Rs./kWh**	**5.34**	**5.55**	**6.67**	**6.20**

8.3 Tariff Proposal for FY 2018-19

CSPDCL's Submission

CSPDCL has proposed the following in its Tariff Proposal:

(a) CSPDCL has proposed uniform increase of 5 paise per unit in energy charges across all categories (except HV-1: Railway Traction)

(b) CSPDCL has proposed the energy charges of Rs. 4.20/kVAh for HV-1: Railway Traction for FY 2018-19.

(c) CSPDCL has proposed the change in applicability of LV-1: Domestic as under:

This tariff is applicable to domestic light and fan and power used for all domestic appliances, in residential premises, orphanages, homes for old/physically challenged people and homes for destitute; dharamshalas; student hostels; working women's hostels; ashrams; schools and hospitals (including X-rays, etc.) run by charitable trusts; Government hospitals/dispensaries, (excluding private clinics and nursing homes); Government Schools; Government aided cultural and educational institutes; farm houses; mosques; temples; churches, gurudwaras; religious and spiritual institutions; ***offices of registered political parties;*** *water works and street lights in private colonies and cooperative societies; common facilities such as lighting in staircase, lifts, fire-fighting in multi-storied housing complex, light and fan in khalihan, kothar, byra where agriculture produce is kept, post office at residence of a villager; residential premises of professionals such as advocates, doctors, artists, consultants, weavers, bidi makers, beauticians, stitching and embroidery workers including their chambers; public toilets; fractional HP motors used for Shailchak by Kumhars in their residences; zero waste centre compost unit.*

(d) CSPDCL has proposed the change in applicability of HV-6: Residential as under:

This tariff shall be applicable for bulk supply at one point to ***Government aided cultural and educational institutes, offices of registered political parties,*** *colonies, multi-storied residential buildings, townships, including townships of industries provided that consumption of non-domestic nature for other general purpose load (excluding drinking water supply, sewage pumping and street light) shall not be more than 10% of total monthly energy consumption.*

In case the consumption of non-domestic nature for other general purpose load exceeds 10% of total monthly energy consumption, the tariff of HV-3: Other Industrial and General Purpose Non-Industrial, shall be applicable on entire consumption.

(e) CSPDCL has proposed the revision in load factor rebate for HV-4: Steel Industries as under:

a. Load factor rebate of 1% on normal energy charge is proposed to be started from 60% instead of 65% as approved in existing tariff.

b. For every 1% increase in monthly load factor, the rebate is proposed to increase by 1%.

c. The load factor rebate up to 20% for monthly load factor of 79% and above is proposed.

Commission's view

As discussed earlier, the Commission has determined a cumulative Revenue Surplus of Rs. 530.83 crore for FY 2018-19. For adjusting the Revenue Surplus, the Commission has proposed reduction in tariff across all categories.

The approach of the Commission for determination of tariff for FY 2018-19 for LV consumer categories is discussed below:

LV-1 Domestic

In continuation of the principle adopted by the Commission in its Tariff Order dated March 31, 2011, there shall be no separate category for BPL consumers. All domestic consumers including BPL card holders shall be provided a domestic connection. Each BPL card holder will be eligible for the subsidy, if any, given by the State Government (subject to the condition of fulfilling the eligibility criteria specified by the State Government). The consumers in the BPL category shall be charged for their consumption over and above the subsidised units at the rate determined for domestic consumers in this Order.

The tariff for all consumption slabs of LV-1 category has been revised. No revision in fixed charges has been approved from the existing tariff. However, energy charges for each slab has been reduced. No revision in tariff applicability has been approved for this Category.

LV-2: Non-Domestic

The tariff for all consumption slabs of LV-2 category has been reduced from the existing tariff. The option for demand-based tariff for non-domestic category will continue. No revision in fixed charges has been approved for Demand based tariff.

LV-3: Agriculture

The tariff for agriculture category has been kept at 82% of ACOS. The agricultural consumers should be given the due benefit of the subsidy, if any, made available to them by the GoCG, from time to time. No revision in existing fixed charges are approved for FY 2018-19, however, the energy charges are reduced from the existing level by 10 paise per unit. The concession of 10% on energy charge for non-subsidised agriculture pump connection will continue for FY 2018-19.

LV-4: Agriculture allied activities

The tariff for all sub-categories of agricultural allied category has been reduced from the existing level. The option for demand-based tariff for agriculture allied activities category will continue.

A new category of *LV-4.1 (A) upto 25 HP* has been created in order to promote the smaller agriculture allied units.

LV-5: LT Industries

The tariff for all sub-categories of LV-5 industries has been reduced. In order to give impetus to LT industries located in rural areas, a rebate of 5% in energy charges for consumers categorised under this tariff category shall be allowed for LV industries located in rural areas notified by Government of Chhattisgarh.

In order to give impetus to small scale industries in southern part of the State a new sub-category has been created. In accordance with Section 62(3) of EA, 2003 providing for differentiation in tariff based on geographical position of any area, a new sub-category has been created under *LV 5.2.2 Above 25 HP up to 100 HP*, and considerably lower tariff has been determined for consumers located in the areas covered under **"Bastar avem Dakshin Kshetra Adivasi Vikas Pradhikaran"** (notified vide Order dated August 22, 2005).

Further, new category of *LV 5.2.3 above 100 HP upto 150 HP* has been created in order to cater the higher load at LV level. The metering of the consumers under this sub-category shall be at HV side, after considering due transformation losses.

The option of demand-based tariff for LV Industry category will continue.

LV-6: Public Utilities

The tariff for the Public Utilities category has been reduced from the existing level and kept at 102% of Average Cost of Supply.

LV-7: Information Technology Industries

The tariff for Information Technology Industries category has retained at existing level.

LV-8: Temporary Supply

The tariff for Temporary Supply category has retained at existing level.

The approach of the Commission for determination of tariff for FY 2018-19 for HV consumer category is discussed below:

HV-1: Railway Traction

The Commission has accepted the proposal of CSPDCL to reduce the energy charges for Railway Traction category. No revision in fixed charges has been approved for FY 2018-19. Further, the existing condition of rebate of 30% on energy charges in case load factor for any month is above 20% will continue for FY 2018-19.

HV-2: Mines

The tariff for HV Mines category has been retained at existing level. However, the revision in other applicable conditions of tariff has resulted in reduction in the overall tariff for this category by 1%.

HV-3: Other Industry and General Purpose Non-Industrial

The tariff for HV-3 category has been revised. The energy charges are reduced. However, no revision in fixed charges is approved. In line with the approach adopted in MYT Order, the tariff for supply at higher voltage has been kept lower.

HV-4: Steel Industries

The tariff for HV-4 category has been revised. The energy charges are reduced. However, no revision in fixed charges is approved. In line with the approach adopted in MYT Order, the tariff for supply at higher voltage has been kept lower.

Further, to boost industrialization in the areas covered under **"Bastar avem Dakshin Kshetra Adivasi Vikas Pradhikaran"** (notified vide Order dated August 22, 2005) and "**Sarguja avem Uttar Kshetra Adivasi Vikas Pradhikaran"** (notified vide Order dated August 22, 2005), the existing condition of special rebate of 7% on energy charge to the consumers starting production on or after April 1, 2017 will continue for FY 2018-19.

HV-5: Irrigation, Agriculture Allied Activities & Public Water Works

The tariff for HV-5 category has been revised. The energy charges are reduced by 20 paise per unit from existing level. However, no revision in fixed charges is approved.

HV-6: Residential

The tariff for HV-6 category has been reduced by overall 3%. The energy charges are reduced by 20 paise per unit from existing level. However, no revision in fixed charges is approved. No revision in tariff applicability has been approved for FY 2018-19.

HV-7: Start up Power

The tariff for HV-7 category has been retained at existing level. The power requirement of solar and wind power generators shall be met by availing supply under HV-3 category.

HV-8: Industries related to manufacturing of equipment for power generation from renewable energy sources

The tariff for HV-8 category has been retained at existing level.

HV-9: Information Technology Industries

The tariff for HV-9 category has been retained at existing level.

8.4 Category Specific Charges

The category-specific changes approved for FY 2018-19 are elaborated below:

i. A discount of 5% on monthly electricity bill (Fixed Charges + Energy Charges) has been approved, under *LV-2: Non-Domestic* and *HV-3: Other Industrial and General Purpose Non-Industrial* category, for Dispensaries, Clinics and Hospitals, other than Government Hospitals.

ii. **<u>Load Factor Rebate for HV 4 Steel category</u>**:

The HV 4: Steel category consumers shall be eligible for load factor rebate on energy charges, as under:

Monthly Load Factor (LF)	**Rebate**
65% - 65.99%	rebate of 1% on normal Energy Charge calculated on entire energy consumption
66% - 66.99%	rebate of 2% on normal Energy Charge calculated on entire energy consumption
67% - 67.99%	rebate of 3% on normal Energy Charge calculated on entire energy consumption
68% - 68.99%	rebate of 4% on normal Energy Charge calculated on entire energy consumption
69% – 69.99%	rebate of 5% on normal Energy Charge calculated on entire energy consumption
70% - 70.99%	rebate of 6% on normal Energy Charge calculated on entire energy consumption
71% - 71.99%	rebate of 7% on normal Energy Charge calculated on entire energy consumption
72% - 72.99%	rebate of 8% on normal Energy Charge calculated on entire energy consumption
73% - 73.99%	rebate of 9% on normal Energy Charge calculated on entire energy consumption
74% -74.99%	rebate of 10% on normal Energy Charge calculated on entire energy consumption
75%-75.99%	rebate of 11% on normal Energy Charge calculated on entire energy consumption
76%-76.99%	rebate of 12% on normal Energy Charge calculated on entire energy consumption
77%-77.99%	rebate of 13% on normal Energy Charge calculated on entire energy consumption
78%-78.99%	rebate of 14% on normal Energy Charge calculated on entire energy consumption
79% and above	rebate of 15% on normal Energy Charge calculated on entire energy consumption

Provided that in case the monthly Load Factor is 64.99% or below, then no Load Factor Rebate shall be payable in that month:

Provided further that hours of load restriction enforced by CSPDCL/CSPTCL shall be excluded for calculation of Load Factor:

Provided also that the Load Factor Rebate shall not be payable on the excess energy consumed corresponding to exceeding contract demand for that billing month:

Provided also that the monthly Load Factor shall be rounded off to the lowest integer.

iii. The applicable load factor limit for HV-4 Steel Industries for 33 and 11 kV supply has been revised to 25% from the existing level of 15% for exclusive Rolling Mills consumers.

iv. The Energy charges in the Peak Period shall be billed at 120% instead of 115%. Similarly, during Non-Peak Period, Energy charges shall be billed at 75% instead of 90%.

8.5 Wheeling Charges

CSPDCL's Submission

CSPDCL has proposed an allocation matrix for wheeling charges and retail supply, wherein the entire power purchase expenses including transmission charges, interest on CSD, and Non-Tariff Income has been considered as part of the retail supply business, along with 50% of the employee expenses, 70% of the A&G expenses, 10% of the R&M expenses, 50% of pension payment, 10% of interest expenses, 10% of depreciation, 10% of RoE, and 90% of the interest on working capital.

CSPDCL has accordingly proposed the Wheeling Charges as under:

Table 8.5-1: Wheeling Charges Proposed by CSPDCL for FY 2018-19

Particulars	FY 2018-19
Total Energy Input to 33 kV distribution system (MU)	23,514.91
Distribution Cost for Wires Business (Rs. Crore)	1,242.86
Distribution Cost for 33 kV voltage level (Rs. Crore)	435.00
Wheeling Charges for 33 kV voltage level (Rs/kWh)	**0.185**

Commission's Views

The Wheeling Charges have been computed by considering the Wires cost as the total ARR less the power purchase expenses and the interest on Consumer Security Deposit, and by considering the distribution cost for 33 kV voltage level as 35% of the total cost. The total energy requirement at 33 kV has been considered as 22,270.70 MU based on the approved Energy Balance for FY 2018-19.

For long-term, medium-term and short-term Open Access customers, Wheeling Charges shall be Rs. 254/MWh (or Rs. 0.254 per kWh) for the energy computed as per the provisions made in Regulation 33 of the CSERC (Connectivity and Intra State Open access) Regulations, 2011 and its subsequent amendment(s)/revision, if any, at 100% load factor for wheeling. The same charges shall be applicable for both collective and bilateral transaction at the point of injection.

Distribution losses shall be applicable at the rate of 6% for the energy scheduled for distribution at the point or points of injection at 33 kV side of 33/11 kV sub-station.

8.6 Revenue at Approved Tariff

The revised tariff will be applicable with effect from April 1, 2018, for the consumers of the State for FY 2018-19. The category-wise revenue at revised tariffs approved in this Order are shown in the Table below:

Table 8.6-1: Revenue in FY 2018-19 at Tariffs approved by the Commission

Consumer Category		Revenue (Rs. Crore)
A	**LV Categories**	**6,652.97**
1	Domestic including BPL	2,695.82
2	Non-Domestic (Normal Tariff & Demand Based Tariff)	823.45
3	Agriculture – Metered & Allied Activities	1,999.92
4	LT Industry	410.47
5	Public Utilities	239.92
6	Temporary	483.40
B	**HV Categories**	**6,780.00**
1	HV 1: Railway Traction	551.85
2	HV 2: Mines (Coals & others)	664.18
3	HV 3: Other Industry & General purpose Industry	1,810.41
4	HV 4: Steel Industries	3,409.47
5	Others	344.10
C	**Total Revenue from LV and HV categories**	**13,432.98**

8.7 Cross Subsidy

An element of cross-subsidy is inherent in the present and revised tariff structure. The tariffs of different consumer categories in relation to the approved adjusted ACoS of Rs. 6.20 per kWh is such that the tariffs for some categories of consumers are higher than the ACoS while the tariffs for other categories are lower than the ACoS. The Commission has reduced the cross-subsidy in this Order and ensured that the tariffs are within +-20% of the ACOS for most of the categories, as shown in the Table below:

Table 8.7-1: Cross Subsidy with existing and approved Tariff (Rs./kWh)

Consumer Category		Approved in Tariff Order for FY 2017-18		Approved in Tariff Order for FY 2018-19	
		ABR (Rs./kWh)	ABR/ ACOS (%)	ABR (Rs./kWh)	ABR/ ACOS (%)
LV	Domestic	4.91	77%	4.66	75%
	Non-Domestic	8.62	134%	8.52	138%
	Agriculture	5.18	81%	5.09	82%
	LT Industry	7.98	124%	7.32	118%
	Public Utilities	6.41	100%	6.27	101%
HV	HV 1: Railway Traction	6.71	105%	5.79	93%
	HV 2: Mines (Coals & others)	8.21	128%	8.02	129%
	HV 3: Other Industry & General-Purpose Industry	8.97	140%	8.20	132%
	HV 4: Steel Industries	7.00	109%	7.14	115%

8.7.1 Cross-Subsidy Surcharge

The Commission has determined the Cross-Subsidy Surcharge (CSS) to be paid by the open access consumers, in accordance with CSERC (Connectivity and Intra-State Open Access) Regulations, 2011 as under:

For Open Access consumers procuring power from renewable energy-based power generating plant, the Cross-Subsidy Surcharge payable shall be 50% of the Cross-Subsidy Surcharge determined for that year.

The approved Cross-Subsidy Surcharge is as under:

a) Rs. 1.23 per kWh for 220 kV/132 kV consumers (which is 90% of the computed value of Rs. 1.37 per kWh).

b) Rs. 1.49 per kWh for 33 kV consumers (which is 90% of the computed value of Rs. 1.65 per kWh).

The approved Tariff Schedule for FY 2018-19 is given in **Chapter 11**.

The Order will be applicable from 1st April, 2018 and will remain in force till March 31, 2019 or till the issue of next Tariff Order, whichever is later. The Commission directs the Companies to take appropriate steps to implement the Tariff Order.

9 TARIFF SCHEDULE FOR FY 2018-19

9.1 Tariff Schedule for Low Voltage (LV) Consumers

This tariff schedule is applicable to all LV consumers as follows:

a) Single-phase, 230 Volts up to a maximum connected load of 3 kW, and

b) Three-phase, 400 volts for maximum demand up to 112.5 kW in case of demand based tariff or for maximum contracted load of 150 HP in case of other tariff, as applicable.

9.1.1 LV-1: Domestic

Applicability

This tariff is applicable to domestic light and fan and power used for all domestic appliances, in residential premises, orphanages, homes for old/physically challenged people and homes for destitute; dharamshalas; student hostels; working women's hostels; ashrams; schools and hospitals (including X-rays, etc.) run by charitable trusts; Government hospitals/dispensaries, (excluding private clinics and nursing homes); Government Schools; farm houses; mosques; temples; churches, gurudwaras; religious and spiritual institutions; water works and street lights in private colonies and cooperative societies; common facilities such as lighting in staircase, lifts, fire-fighting in multi-storied housing complex, light and fan in khalihan, kothar, byra where agriculture produce is kept, post office at residence of a villager; residential premises of professionals such as advocates, doctors, artists, consultants, weavers, bidi makers, beauticians, stitching and embroidery workers including their chambers; public toilets; fractional HP motors used for Shailchak by Kumhars in their residences; zero waste centre compost unit.

Tariff:

Category of Consumers	Units Slab	Fixed Charge (Rupees per kWh)	Energy Charge (Rs. per kWh)	Minimum Fixed Charge
LV-1: Domestic				
Domestic including BPL Consumers	0 -40 units	2.55	1.15	Single Phase Rs. 40/- per month
	41-200 units	2.60	1.20	
	201 - 600 units	3.40	1.90	Three Phase Rs. 120/- per month
	601 and above units	4.90	2.45	

Notes:

i. Only those domestic consumers who hold BPL Card issued by the State Government will be considered as BPL domestic consumer. BPL Card holders shall be entitled for subsidy for 40 units as per State Government Order, and their consumption shall be billed as per tariff LV-1.

ii. All BPL domestic consumers shall be billed as per meter reading. All the new BPL domestic connections shall be served with meter only.

iii. If a portion of the dwelling is used for the conduct of any business other than those stipulated above, the entire consumption shall be billed under Non-domestic tariff LV-2.

9.1.2 LV-2: Non-Domestic

Applicability

This tariff is applicable to light and fan and power to shops, showrooms, business houses, offices, educational institutions (except those included in LV-1 and LV-5), public buildings, Warehouses, town halls, clubs, gymnasium and health clubs, meeting halls, places of public entertainment, circus, hotels, cinemas, railway stations, private clinics and nursing homes including X-rays plant, diagnostic centres, pathological labs, carpenters and furniture makers, juice centres, hoardings and advertisement services, public libraries and reading rooms, typing institutes, internet cafes, STD/ISD PCO's, Mobile Towers, coaching centres, FAX/photocopy shops, tailoring shops, photographers and colour labs, laundries, cycle shops, compressors for filling air, toy making industry, nickel plating on small scale, restaurants, eating establishments, Government circuit houses/rest houses, guest houses, marriage gardens, farmhouses being used for commercial purposes, book binders, offset printers, bakery shop, banks, parlours, printing press, computer centre, petrol pumps and service stations, electric charging centres for Vehicles, HV industrial consumers seeking separate independent LV connection in the same premises of HV industrial connection and other consumers not covered under any other category of LV consumers.

Tariff:

Category of Consumers	Units Slab	Fixed Charge (Rs per kW of Contracted load/Demand)	Energy Charge (Rs. per kWh)
LV-2.1: Non-Domestic	0 – 100 units	Rs. 70 per kW per month up to 3 kW and Rs. 120 per kW per month above 3 kW	5.65
	101 - 500 units		6.65
	501 and above units		7.95
LV-2.2: Non-Domestic Demand Based Tariff (for Contract Demand of 15 to 112.5 kW)		Demand Charges- Rs 240/kW/month on billing demand	7.25

Note:

i. Fixed Charges for LV-2.1 are non-telescopic. For example, if connected load is 5 kW then monthly fixed charges shall be Rs. 600 per month;

ii. The tariff LV-2.2 will be optional.

iii. Fixed Charges of LV-2.1 and Demand Charge on contract demand of tariff LV-2.2 is a monthly minimum charge, whether any energy is consumed during the month or not.

iv. A discount of 5% on monthly electricity bill (Fixed Charges + Energy Charges) shall be applicable for Dispensaries, Clinics and Hospitals, other than Government Hospitals.

9.1.3 LV-3: L.V. Agriculture

Applicability

This tariff is applicable to agricultural pumps/tube wells used for irrigation (including drip and sprinkler system) for crops, nursery, horticulture crops (growing vegetables and fruits), floriculture (growing flowers), growing of herbs/medicinal plants and mushroom, jatropha plantation, chaff cutters, thresher, winnowing machines, sugarcane crushers used on agricultural land, lift irrigation pumps/tube wells of State Government or its agencies; water drawn by agriculture pumps used by labour, cattle, and farm houses in the premises of agriculture farms for drinking purposes only and packaging of agriculture produce at farm, khalihan, etc.

Tariff:

Category of Consumers	Fixed Charge	Energy Charge (Rs. per kWh)
LV-3: L.V. Agriculture	Rs. 80/HP/month	4.70

One 40W incandescent bulb or CFL/LED bulb of wattage not exceeding 20W is permitted at or near the motor pump set in the power circuit.

Notes:

i. All new connections of above 3 HP load shall be served only after installation of capacitor of specified rating to maintain power factor of 0.85 and above.

ii. All pump connections of above 3 HP load not provided with capacitors of specified rating and who do not maintain power factor of 0.85 and above, shall be required to pay surcharge of 35 paise per kWh.

iii. Fixed Charge is monthly minimum charge whether any energy is consumed or not during the month.

iv. For non-subsidized agriculture pump connection, a concession of 10% on energy charge shall be allowed.

9.1.4 LV- 4: L.V. Agriculture Allied Activities

Applicability

This tariff is applicable to pump/tube well connections, other equipment and light and fan for tree plantation, fisheries, hatcheries, poultry farms, dairy, cattle breeding farms, sericulture, tissue culture, aquaculture laboratories, and milk chilling plant.

Tariff:

Category of Consumers	Fixed Charge	Energy Charge (Rs. per kWh)
LV-4.1 (A): Up to 25 HP	Rs. 100 per HP per month or Rs. 135 per kW per month	5.00
LV-4.1 (B): Above 25 HP up to 100 HP	Rs. 110 per HP per month or Rs. 147 per kW per month	5.60
LV-4.2: Demand based tariff for Contract Demand of 15 to 112.5 kW	Rs. 200 per kW per month on billing demand	5.50

Note:

i. All connections shall be required to maintain average monthly power factor of 0.85 by providing capacitors of suitable rating, failing which they shall be required to pay surcharge of 35 paise per kWh.

ii. For tariff LV-4.1, Fixed Charge is monthly minimum charge and for tariff LV-4.2 Demand Charge on contract demand is monthly minimum charge, whether any energy is consumed during the month or not.

9.1.5 LV-5: L.V. Industry

Applicability

These tariffs are applicable to power, light and fan for industries such as flour mills, hullers, grinders for grinding masala, power looms, rice mills, dall-mills, oil mills, ice factories, cold storage plants, ice candies, terracotta, handloom, handicraft, agro-processing units, minor forest produce, laboratories of engineering colleges, ITIs and polytechnics and industrial institutions, aluminium based factory, bakery/biscuit industries, bottling plant, cable/insulation industries, Cement Based Factory, Chemical Plant, Coal Based Industries, Conductor Wire Industries, Cutting & Polishing Of Marble, Fabrication Workshop, Food Processing Industry, Forest Product based factory, GI Wire Industries, Glass Industries, Hot Mixing Plant, IT based industries, Mineral based factory, Plastic Industries, Plywood factory, Pulverize industries, Rolling Mill, Saw Mill, Stone Crusher, Toy Industries, Wire Drawing / Steel Industries, Wire Product, workshops and fabrication shop, etc.

Tariff:

Category of Consumers		Fixed Charge	Energy Charge (Rs. per kWh)
LV-5: L.V. Industry			
5.1	Flour mills, Hullers, power looms, grinders for grinding masalas, terracotta, handloom, handicraft, agro-processing units, minor forest produce up to 15 HP	Rs 65/HP/month	3.80
a)	Bastar avem Dakshin Kshetra Adivasi Vikas Pradhikaran, and Sarguja avem Uttar Kshetra Adivasi Vikas Pradhikaran*	Rs 65/HP/month	3.40

Category of Consumers		Fixed Charge	Energy Charge (Rs. per kWh)
5.2	Other Industries		
5.2.1	Up to 25 HP	Rs. 100/HP/month	4.80
a)	Bastar avem Dakshin Kshetra Adivasi Vikas Pradhikaran, and Sarguja avem Uttar Kshetra Adivasi Vikas Pradhikaran*	Rs. 80/HP/month	3.80
5.2.2	Above 25 HP up to 100 HP	Rs. 110/HP/month	5.50
a)	Bastar avem Dakshin Kshetra Adivasi Vikas Pradhikaran *	Rs. 90/HP/month	5.00
5.2.3	Above 100 HP up to 150 HP	Rs. 300/HP/month	5.85
5.3	Demand based Tariff- for Contract Demand of 15 kW to 112.5kW	Demand Charges- Rs. 190/kW/month on billing demand	5.70

***Notified Vide Order dated August 22, 2005

Notes:

i. Demand based tariff LV-5.3 is applicable for maximum Contracted Demand from 15 kW to 112.5 kW.

ii. For tariff LV-5.1 and LV-5.2, Fixed Charge is monthly minimum charge and for tariff LV-5.3, the Demand Charge on contract demand is a monthly minimum charge whether any energy is consumed during the month or not.

iii. In order to give impetus to LT industries located in rural areas, a rebate of 5% in energy charges for consumers specified under tariff category shall be allowed for LV industries located in rural areas notified by Government of Chhattisgarh.

iv. In accordance with the Section 62(3) of EA 2003 providing for differentiation in tariff based on geographical position of any area, a new sub-category has been created under LV 5.2.2, and considerably lower tariff has been determined for consumers located in the areas covered under **"Bastar avem Dakshin Kshetra Adivasi Vikas Pradhikaran"** (notified vide Order dated August 22, 2005) and "**Sarguja avem Uttar Kshetra Adivasi Vikas Pradhikaran"** (notified vide Order dated August 22, 2005).

9.1.6 LV-6: Public Utilities

Applicability

This tariff is applicable to colonies developed by Chhattisgarh State Housing Board and public utilities such as water supply schemes, sewage treatment plants and sewage pumping installations, crematorium, traffic signals and lighting of public streets including public parks and archaeological and other monuments when requisition for supply is made by Public Health Engineering Department, Local Bodies, Gram Panchayats or any organization made responsible by the Government to maintain these services.

Tariff:

Category of Consumers	Fixed Charge	Energy Charge (Rs. per kWh)
LV-6: Public utilities	Rs. 125/HP/month or Rs. 168/kW/month	5.65

Note:

Fixed Charge is monthly minimum charge whether any energy is consumed during the month or not.

9.1.7 LV-7: Information Technology Industries

Applicability

This tariff is applicable to Information Technology Industries having minimum contract demand of 50 kW.

Tariff:

Category of Consumers	Fixed Charge	Energy Charge (Rs. per kWh)	Minimum Charge
LV-7: Information Technology Industries	Nil	4.50	Rs. 1500/- per month

Note:

Minimum Charge is monthly minimum charge whether any energy is consumed during the month or not.

9.1.8 LV 8: Temporary Supply

Applicability

This tariff is for connections that are temporary in nature. The tariff applicable shall be as given for the respective category of consumer.

Provided that for construction purpose, a consumer shall be given a temporary connection only.

Temporary supply cannot be demanded by a prospective consumer as a matter of right but will normally be arranged by the Licensee when a requisition is made subject to technical feasibility.

Tariff:

Fixed Charge and Energy Charge shall be billed at one and half times the normal tariff as applicable to the corresponding consumer categories.

Provided that for Agricultural pump connections, the Fixed Charge and Energy Charge shall be billed at the normal tariff applicable for LV 3 category.

Notes:

i. An amount equal to estimated bill for 3 months or for the period of temporary connection requisitioned, whichever is less, is payable before serving the temporary connection, subject to replenishment from time to time and adjustment in the last bill after disconnection.

ii. No temporary connection shall be served without a meter.

iii. Connection and disconnection charge shall be paid as per the schedule of miscellaneous charges.

iv. No rebates/concessions under any head shall be applicable to temporary connections.

v. A month for the purpose of billing of temporary supply shall mean 30 days from the date of connection or part thereof.

vi. In case connected load/maximum demand is found more than contracted load/contract demand, then the billing of excess load/supply shall be done for the amount calculated as per para 1.1.11.

vii. Any expenditure made by the Licensee for providing temporary supply up to the point of supply, shall be paid for by the consumer as per prescribed procedure.

viii. Temporary connections shall not be served unless suitable capacitors, wherever applicable, are installed so as to ensure Power Factor of not less than 0.85 lagging.

ix. Surcharge at the rate of 2% per month or part thereof on the outstanding amount of the bill shall be payable in addition, from the due date of payment of bill, if the bill is not paid by the consumer within the period prescribed.

9.1.9 Terms and Conditions of L.V. Tariff

1. Energy will be supplied to the consumer ordinarily at a single point for the entire premises of the consumer.

2. Contracted Load/Connected Load or Contract Demand/Maximum Demand in fraction shall be rounded off to the next whole number.

3. For the purpose of separate independent LV connection to HV Industrial consumer in the same premises of HV industrial connection, to meet out its essential load during emergency or non-availability of supply in HV connection under LV 2 category, conditions as mentioned in Clause 4.40 of the Chhattisgarh State Electricity Supply Code and its amendment, if any, shall be applicable.

4. For the purpose of Demand Based Tariff (LV-2.2, LV-4.2 and LV-5.3)

   i. **Determination of Maximum Demand**- The maximum demand means the highest load measured by sliding window principle of measurement in average kVA or average kW as the case may be at the point of supply of a consumer during any consecutive period of 30 minutes during the billing period.

   ii. **Billing Demand** – The billing demand for the month shall be the actual maximum kW demand of the consumer recorded during the month or 75% of the Contract Demand or 15 kW, whichever is higher. The billing demand shall be rounded off to the next whole number.

   iii. **Minimum Charge** – The demand charge on contract demand (CD) is a monthly minimum charge whether any energy is consumed during the month or not.

   iv. There shall be no restriction on connected load for applicability of demand based tariff.

9.1.10 Power Factor Incentive and Surcharge

1. All LV industrial, agriculture allied, public water works, sewage treatment plants and sewage pumping installations' consumers shall arrange to install suitable low tension capacitors of appropriate capacity at their cost. The consumer also shall ensure that the capacitors installed by them properly match with the actual requirement of the load so as to ensure average monthly Power Factor of 0.85 or above. A consumer who fails to do so shall be liable to pay Power Factor surcharge @ 35 paise per kWh on the entire consumption of the month.

2. All the agriculture pump connections of above 3 HP load shall be provided with capacitor of specified rating and maintain average monthly Power Factor of 0.85 or above failing which they shall be required to pay Power Factor surcharge @ 35 paise per kWh on the entire consumption of the month.

3. All LV non-domestic consumers with Contracted Load/Connected Load of 15 kW or above shall arrange to install suitable Low Tension capacitors of appropriate capacity at their cost. The consumer shall ensure that the capacitors installed by him properly match with the actual requirement of the load so as to ensure average monthly Power Factor of 0.85 or above. A consumer who fails to do so will be liable to pay Power Factor surcharge @ 35 paise per kWh on the entire consumption of the month.

4. All LV installations having welding transformer are required to install suitable Low Tension capacitors so as to ensure Power Factor of not less than 0.85. Consumers not complying with the above shall have to pay Power Factor surcharge of 75 paise per kWh on the entire monthly consumption, provided the load of the welding transformer(s) exceeds 25% of the total connected load.

Note - For the purposes of computing the connected load of welding transformers in kW, a Power Factor of 0.6 shall be applied to the kVA rating of such welding transformers. The kVA rating can also be calculated on the basis of load voltage and maximum load current on secondary side of welding machine.

5. The average monthly Power Factor recorded in the meter shall be considered for billing of Power Factor surcharge or Power Factor incentive, as the case maybe.

6. Levy of Power Factor surcharge as indicated above, shall be without prejudice to the rights of CSPDCL to disconnect the consumer's installation after issue of 15 days' notice if the average monthly Power Factor remains 0.7 or below

for a period of more than two consecutive months. It shall remain disconnected till the consumer makes suitable arrangements to improve the Power Factor.

7. Notwithstanding the above, if the average monthly Power Factor of a new consumer is found to be less than 0.85 at any time during the first six months from the date of connection and if he maintains average monthly Power Factor continuously in subsequent three months at not less than 0.85, then the surcharge billed on account of low Power Factor during the said period shall be withdrawn and credited in next month's bill.

8. All categories of LV consumers except the LV domestic consumers in whose case Power Factor surcharge is applicable; shall also be eligible for Power Factor incentive. Such incentive shall be payable @ 10 paise per kWh on the entire consumption of that month in which he maintains an average monthly Power Factor equal to or above 0.90 and @ 15 paise per kWh of entire consumption of that month in which he maintains an average monthly Power Factor of 0.95 or above.

9.1.11 Provisions of billing in case of Excess Supply

i. <u>For connected load based tariff</u>

1. The consumers, except the domestic (LV-1) consumers, availing supply at connected load based tariff shall restrict their actual connected load within the contracted load. However, in case the actual connected load in any month exceeds the contracted load, the connected load based tariff shall apply only to the extent of contracted load and corresponding units of energy. The connected load in excess of contracted load and corresponding units of energy shall be treated as excess supply. The excess supply so consumed in any month, shall be charged at the rate of one and half times of the connected load based tariff applicable to the consumer (fixed and energy charges and VCA charges) for the excess connected load to the extent of 20% of contracted load and at the rate of two times of connected load based tariff if the excess connected load is found beyond 20% of contracted load for actual period of enhancement of load or 6 months whichever is less, including the month in which the existence of excess load is detected and shall be continued to be billed till excess load is removed or contract load is enhanced.

2. Where the recording facility of demand is available, the billing on account of excess supply shall be restricted to the recorded month only.

ii. <u>For Demand Based tariff consumers</u>

Consumers availing supply at demand based tariff (LV-2.2/LV-4.2/LV- 5.3) should at all times restrict their maximum demand to the contract demand. However, contract demand for the demand based tariff consumer can be less than connected load. In case the maximum demand in any month exceeds the contract demand, the said demand based tariff (LV–2.2/LV-4.2/LV- 5.3) shall apply only to the extent of the contract demand and corresponding units of energy. The demand in excess of contract demand and corresponding units of energy shall be treated as excess supply. The excess supply so availed in any month, shall be charged at the rate of one and half times of the normal tariff applicable to the consumer (fixed and energy charges and VCA charges) for the excess demand to the extent of 20% of contract demand and at the rate of two times of normal tariff if the excess demand is found beyond 20% of contract demand.

For the purpose of billing of excess supply, the billing demand and the units of energy shall be determined as under:

a) Billing Demand: The demand in excess of the contract demand in any month shall be the billing demand.

b) Units of Energy: the units of energy corresponding to kW portion of the demand in excess of the contract demand shall be:-

EU= TU (1-CD/MD)

Where

EU – denotes excess units;

TU – denotes total units supplied during the month;

CD – denotes contract demand, and

MD – denotes actual maximum demand.

I. The excess supply availed in any month shall be charged along with the monthly bill and shall be payable accordingly.

II. The above billing of excess supply at one and half times/two times of the normal tariff shall be applicable to consumers without prejudice to

CSPDCL's right to discontinue supply in accordance with the provisions contained in the Chhattisgarh State Electricity Supply Code, 2011, as amended from time to time.

1. Delayed Payment Surcharge

If the bill is not paid by the consumer within the period (due date) prescribed for payment of the bill, a surcharge @ 1.5% per month or part thereof, on the total outstanding amount of the bill (including arrears, if any, but excluding amount of surcharge), subject to minimum of Rs. 5 shall be payable in addition, from the due date of payment as mentioned in the bill.

2. Additional Charges

Every Local Body shall pay an additional charge equivalent to any tax or fee levied by it under the provisions of any law including the Corporation Act, District Municipalities Act or Gram Panchayat Act on the poles, lines, transformers and other installations through which the Local Body receives supply.

3. Advance Payment Rebate

For advance payment made before commencement of consumption period for which bill is to be prepared, a rebate @ 0.5% per month on the amount which remains with the Licensee at the end of the calendar month excluding security deposit, shall be credited to the account of consumer after adjusting any amount payable to the Licensee subject to the net amount of advance being not less than Rs.1000 and shall be adjustable in next month's bill.

4. Rounding off

The bill shall be rounded off to the nearest multiple of Rs.10. Difference, if any, between the bill amount before and after rounding off, shall be adjusted in next month's bill.

For example: - If the total amount of bill is Rs. 235.00, then the bill shall be rounded off to Rs. 240 and Rs. 5.00 will be credited in next month's bill, whereas if the total amount of bill is Rs. 234.95, then the bill will be rounded off to Rs. 230 and Rs. 4.95 will be debited in next month's bill. In view of the above provision, no surcharge will be levied on outstanding amount, which is less than Rs. 10.

5. Applicability of tariff

In case of any dispute about applicability of tariff to a particular LV category, the decision of the Commission shall be final and binding.

6. Tax or Duty

The tariff does not include any tax or duty, etc., on electrical energy that may be payable at any time in accordance with any law in force. Such charges, if any, shall be payable by the consumer in addition to tariff charges.

7. Meter Hire

Meter hire shall be charged as per the schedule of miscellaneous charges to all categories of LV consumers except the consumers of domestic light and fan category. Domestic light and fan category consumer shall not be required to pay such charges.

8. Variable Cost Adjustment (VCA) Charge

VCA charge on consumption from April 1, 2018 as per the formula and conditions specified in the CSERC MYT Regulations, 2015 shall be levied in addition to energy charge on all the LV categories including temporary supply.

However, from the date of applicability of this Order, the base values for computation of VCA for succeeding period shall be revised in accordance to this Order.

9. Conditions to have over-riding effect

All the above conditions of tariff shall be applicable to the consumer notwithstanding the provisions, if any, in the agreement entered into by the consumer with the Licensee.

9.2 Tariff Schedule for High Voltage (HV) Consumers

9.2.1 HV-1: Railway Traction

Applicability:

This tariff is applicable to the Railways for traction loads only.

Tariff:

Supply Voltage	Demand Charge (Rs./kVA/month)	Energy Charge (Rs. per kVAh)
Railway Traction on 132 kV / 220 kV	350	4.20

Specific terms and conditions:

1. The maximum demand means the highest load measured by sliding window principle of measurement in average kVA at the point of supply of a consumer during any consecutive period of 15 minutes during the billing period.

2. Provided that if as a result of an emergency in the consumer's installation or in the transmission lines supplying energy to the said traction sub-station, extra load is availed by the consumer with prior intimation to the Licensee, the period of such emergency shall not be taken into account for the purpose of working out the maximum demand.

3. Provided further that as a result of emergency in the traction sub-station (TSS) or in the transmission line supplying power, if the entire load of the TSS or part thereof is transferred to adjacent TSS, the maximum demand (MD) of the TSS for the month shall not be taken as less than the average MD recorded for the previous three months during which no emergency had occurred.

4. In order to give impetus to electrification of railway network in the State, a rebate of 10% in energy charges for new railway traction projects shall be allowed for a period of five years from the date of connection for such new projects for which Agreements for availing supply from the Licensee are finalised during FY 2018-19.

5. Other terms and condition shall be as mentioned in the general terms and conditions of HV tariff.

6. For traction sub-stations of Indian Railways, if Load Factor for any month is above 20%, then a rebate of 30% shall be allowed on Energy Charge calculated on entire energy consumption for that month.

9.2.2 HV-2: Mines

Applicability

This tariff is applicable to all types of mines, mines with stone crusher unit, coal mines, coal washery, etc., for power, lights, fans, cooling ventilation, etc., which shall mean and include all energy consumption for mining purpose, and consumption for residential and general use therein including offices, stores, canteen compound lighting, etc.

Tariff:

Supply Voltage	Demand Charge (Rs./kVA/month)	Energy Charge (Rs. per kVAh)
220 kV supply	500	6.00
132 kV supply	500	6.15
33 kV supply	500	6.40
11 kV supply	500	6.70

9.2.3 HV-3: Other Industrial and General Purpose Non-Industrial

Applicability

1. This tariff is applicable to all types of industries including cement industries and industries not covered under HV-1, HV-2 and HV-4 for power, lights, fans, cooling ventilation, etc., which shall mean and include all energy consumption in factory; and consumption for residential and general use therein including offices, stores, canteen compound lighting, etc.

2. This tariff is also applicable for bulk supply at one point to establishment such as Railways (other than traction), hospitals, offices, hotels, shopping malls, electric charging centres for Vehicles, power supplied to outside of State (border villages), educational institutions, mixture and/or stone crushers and other institutions, etc., having mixed load or non-industrial and/or non-residential load. This tariff is also applicable to all other HT consumers not covered specifically in any other HV tariff category.

Tariff:

Supply Voltage HV- 3	Demand Charge (Rs./kVA/month)	Energy Charge (Rs. per kVAh)
220 kV supply	375	5.85
132 kV supply	375	5.95
33 kV supply (Load factor >15%)	375	6.30
33 kV supply (Load factor <=15%)	190	6.45
11 kV supply (Load Factor >15%)	375	6.65
11 kV supply (Load Factor <=15%)	190	6.85

Note:-

i. A discount of 5% on monthly electricity bill (Fixed Charges + Energy Charges) shall be applicable for Dispensaries, Clinic and Hospitals other than Government Hospitals.

9.2.4 HV-4: Steel Industries

Applicability

This tariff is applicable to steel industries, mini-steel plant, rolling mills, sponge iron plants, ferro alloy units, steel casting units, pipe rolling plant, iron ore pellet plant, iron beneficiation plant and combination thereof including wire drawing units with or without galvanizing unit; for power, lights, fans, cooling ventilation, etc., which shall mean and include all energy consumption in factory, and consumption for residential and general use therein including offices, stores, canteen compound lighting, etc.

Tariff:

Supply Voltage HV- 4	Demand Charge (Rs./kVA/month)	Energy Charge (Rs. per kVAh)
220 kV supply	375	5.30
132 kV supply	375	5.45
33 kV supply (Load factor >15%)*	375	5.85
33 kV supply (Load factor <=15%)*	190	6.35
11 kV supply (Load Factor >15%)*	375	5.95
11 kV supply (Load Factor <=15%)*	190	6.75

Note:-

*The applicable Load Factor limit for 33 kV and 11 kV supply for exclusive Rolling mills consumers shall be 25%.

Further, to boost industrialization in the areas covered under **"Bastar avem Dakshin Kshetra Adivasi Vikas Pradhikaran"** (notified vide Order dated August 22, 2005) and "**Sarguja avem Uttar Kshetra Adivasi Vikas Pradhikaran"** (notified vide Order dated August 22, 2005), a special rebate of 7% on energy charge is being provided to the consumers starting production on or after April 1, 2017.

Load Factor Rebate

The consumers of this category shall be eligible for Load Factor rebate on Energy Charges:

Monthly Load Factor (LF)	**Rebate**
65% - 65.99%	rebate of 1% on normal Energy Charge calculated on entire energy consumption
66% - 66.99%	rebate of 2% on normal Energy Charge calculated on entire energy consumption
67% - 67.99%	rebate of 3% on normal Energy Charge calculated on entire energy consumption
68% - 68.99%	rebate of 4% on normal Energy Charge calculated on entire energy consumption
69% – 69.99%	rebate of 5% on normal Energy Charge calculated on entire energy consumption
70% - 70.99%	rebate of 6% on normal Energy Charge calculated on entire energy consumption
71% - 71.99%	rebate of 7% on normal Energy Charge calculated on entire energy consumption
72% - 72.99%	rebate of 8% on normal Energy Charge calculated on entire energy consumption
73% - 73.99%	rebate of 9% on normal Energy Charge calculated on entire energy consumption
74% -74.99%	rebate of 10% on normal Energy Charge calculated on entire energy consumption
75%-75.99%	rebate of 11% on normal Energy Charge calculated on entire energy consumption

Monthly Load Factor (LF)	Rebate
76%-76.99%	rebate of 12% on normal Energy Charge calculated on entire energy consumption
77%-77.99%	rebate of 13% on normal Energy Charge calculated on entire energy consumption
78%-78.99%	rebate of 14% on normal Energy Charge calculated on entire energy consumption
79% and above	rebate of 15% on normal Energy Charge calculated on entire energy consumption

Provided that in case the monthly Load Factor is 64.99% or below, then no Load Factor Rebate shall be payable in that month:

Provided further that hours of load restriction enforced by CSPDCL/CSPTCL shall be excluded for calculation of Load Factor:

Provided also that the Load Factor Rebate shall not be payable on the excess energy consumed corresponding to exceeding contract demand for that billing month:

Provided also that the monthly Load Factor shall be rounded off to the lowest integer.

9.2.5 HV-5: Irrigation & Agriculture Allied Activities, Public Water Works

Applicability

i. This tariff shall be applicable for Chhattisgarh State Housing Board and agriculture pump connections, irrigation pumps of lift irrigation schemes of State Government or its agencies/co-operative societies, including colonies developed and energy used for lighting pump houses.

ii. This tariff is also applicable to the consumer availing supply at HV for the purpose of pump/tube well connections, other equipment for tree plantation, fisheries, hatcheries, poultry farms, dairy, cattle breeding farms, sericulture, tissue culture and aquaculture laboratories and milk chilling plant and bakery for power, lights, fans, coolers, etc., which shall mean and include all energy consumed in factory, offices, stores, canteen, compound lighting, etc., and residential use therein.

iii. This tariff shall be applicable for public utility water supply schemes, sewerage treatment plants and sewage pumping installations run by P.H.E. Department, Local Bodies, Gram Panchayat or any organization made

responsible by the Government to supply/maintain public water works/sewerage installation including energy used for lighting pump house.

Tariff:

Supply Voltage	Demand charge (Rs./kVA/month)	Energy charge (Rs. per kVAh)
Irrigation, Agriculture Allied Activities & Public Water Works	375	5.30

9.2.6 HV-6: Residential

Applicability

This tariff shall be applicable for bulk supply at one point to colonies, multi-storied residential buildings, townships, including townships of industries provided that consumption of non-domestic nature for other general purpose load (excluding drinking water supply, sewage pumping and street light) shall not be more than 10% of total monthly energy consumption.

In case the consumption of non-domestic nature for other general purpose load exceeds 10% of total monthly energy consumption, the tariff of HV-3: Other Industrial and General Purpose Non-Industrial, shall be applicable on entire consumption.

Tariff:

Category of Consumers	Demand charge (Rs./kVA/month)	Energy charge (Rs. per kVAh)
Residential	375	5.70

9.2.7 HV-7: Start-Up Power Tariff

Applicability

The tariff shall be applicable to those consumers who avail supply for start-up power for their power plant (generating station and captive generating plant) at 400/220/132/33/11 kV.

Tariff:

Supply Voltage	Demand charge (Rs./kVA/month)	Energy charge (Rs. per kVAh)
400/220/132/33/11 kV	200	8.05

Conditions for start-up power consumers:

i. Contract demand shall not exceed 10% of the highest capacity of generating unit of the generating station/captive generating plant

ii. Captive generating plants, which do not have any co-located industrial load and who use the grid for transmission and wheeling of electricity can avail start up-power tariff.

iii. Captive generating plants, which have co-located industrial load are also entitled for start-up power tariff.

iv. Drawal of power shall be restricted to within 10% of Load Factor based on the Contract Demand in each month. In case the Load Factor in a month is recorded beyond 10%, the demand charge shall be charged at double the normal rate. Supply can also be disconnected if the monthly Load Factor exceeds 10% in any two consecutive months. Load Factor shall be computed from contract demand.

v. Start-up power shall also be made available to the generator/captive generating plant connected to CTU grid with proper accounting.

vi. This tariff shall also be applicable to generators for the consumption upto COD of the plant.

vii. Generators who have not availed start-up connection but eventually draw power from the grid shall be billed @ Rs 12 per kVAh. In case of captive generating plant, which do not have any co-located industrial load and who use the grid for transmission and wheeling of electricity, such CGP's, if they have not availed start-up connection but eventually draw power, shall be billed @ Rs. 12 per kVAh.

viii. In case of captive generating plant, which have co-located industrial load and who have not availed start-up connection but eventually draws power from the grid shall be billed @ Rs. 12 per kVAh. All renewable generators (biomass, small hydro, solar and wind) are exempted from payment of demand charge for the first five years from the date of commercial operation of their power plant, i.e., they will be required to pay only energy charge during first five years from COD and full start-up tariff from sixth year onwards. However, in case during first five years from the date of its connection, if the actual demand exceeds the contract demand, the billing for that month shall be as per other start-up power consumers exceeding contract demand. In case if the Load Factor is within 10% but actual demand exceeds the contract demand then also the billing for that month shall be as per other start-up power

consumer exceeding contract demand. In case, it is established that the biomass based generator has used biomass in the lesser ratio than as mentioned in the guidelines of the Ministry of New and Renewable Energy during any financial year in first five years from the date of availing start up power tariff then demand charge as per this tariff category (HV–7) shall also become payable for the whole of such financial year and such payable amount will be billed in three equal instalments after such happening comes to the notice of CSPDCL.

9.2.8 HV-8: Industries related to manufacturing of equipment for power generation from renewable energy sources

Applicability

This tariff is applicable to consumers availing supply at 220/132/33/11 kV for manufacturing of plant, machinery and equipment used for generation of power from renewable sources of energy including for the manufacturing of hydel turbine, generator and related auxiliaries needed for small hydel plants up to 25 MW but excluding manufacturing of boilers, turbines, generators, and the related auxiliaries, which otherwise can be used for generation of power from conventional source of energy. This tariff shall also not be applicable for manufacturing of such common machines/equipment/and other items such as electrical motors, structural items, nuts bolts, etc. which can be used for other purposes also.

Tariff:

Supply Voltage	Demand charge (Rs./kVA/month)	Energy charge (Rs. per kVAh)
220/132/33/11 kV	110	3.70

9.2.9 HV-9: Information Technology Industries

Applicability

This tariff is applicable to Information Technology Industries having minimum contract demand of 50 kW.

Tariff:

Category of Consumers	Fixed Charge	Energy Charge (Rs. per kVAh)	Minimum Charge
HV-8: Information Technology Industries	Nil	4.50	Rs. 3000/-per month

Note:

Minimum Charge is monthly minimum charge whether any energy is consumed during the month or not.

9.2.10 HV-10: Temporary Connection at HV

Applicability

This tariff is applicable to all HV connections (other than the consumers availing Start up power Tariff (HV-7)), of temporary nature at 220/132/33/11 kV.

Provided that for construction purpose, a consumer shall be given a temporary connection only.

Temporary supply cannot be demanded by a prospective consumer as a matter of right but will normally be arranged by the Licensee when a requisition is made subject to technical feasibility.

Tariff:

One and half times of the normal Tariff applicable for the corresponding category of consumer for demand and energy charge shall be applicable.

Notes

i. An amount equal to estimated bill for 3 months or for the period requisitioned, whichever is less; shall be payable in advance before the temporary connection is served subject to replenishment from time to time and adjustment in the last bill after disconnection.

ii. If maximum demand is found more than the contract demand in any billing month, the billing shall be done at one and half times/two times of the energy charges and Demand Charges as applicable, in case of exceeding contract demand in permanent connection, and shall be calculated as per Clause 10 of Terms & Conditions of HV tariff.

iii. Any expenditure made by CSPDCL up to the point of supply for giving temporary connection shall be payable by the consumer as per prescribed procedure.

iv. Connection and disconnection charges shall be paid separately.

v. No rebates/concessions under any head shall be applicable to temporary connections.

vi. Month for the purpose of billing of temporary supply shall mean 30 days from the date of connection or for part thereof.

vii. Other terms and conditions of the relevant category of tariff shall also be applicable.

viii. Surcharge at 2% per month or part thereof on the outstanding amount of the bill shall be payable in addition from the due date of payment of bill, if the bill is not paid by the consumer within the period prescribed.

9.2.11 Time of Day Tariff

This tariff is applicable to HV-2, HV-3, and HV-4 tariff category. Under the Time of Day (TOD) Tariff, electricity consumption in respect of HV industries for different periods of the day, i.e., normal period, peak load period and off-peak load period, shall be recorded by installing a TOD meter. Consumption recorded in different periods shall be billed at the following rates on the tariff applicable to the consumer:

Period of Use	Normal rate of Demand Charge Plus
(i) Normal period (5:00 a.m. to 6:00 p.m.)	Normal rate of Energy Charges
(ii) Evening peak load period (6:00 p.m. to 11:00 p.m.)	120% of normal rate of Energy Charge
(iii) Off-peak load period (11:00 p.m. to 5:00 am of next day)	75% of normal rate of Energy Charge

Applicability and Terms and Conditions of TOD tariff:

i. The terms and conditions of the applicable tariff (such as monthly tariff minimum charge, etc.) shall continue to apply to a consumer to whom TOD tariff is applicable.

ii. In case, the consumer exceeds the contract demand, the demand in excess and the corresponding energy shall be billed at one and half/two times (as per methodology specified in Para “Additional Charges for Exceeding Contract Demand” of the Terms and Conditions of HV Tariff) of the normal tariff applicable for the day time (i.e., 5.00 a.m. to 6.00 p.m.) irrespective of the time of use.

9.2.12 Terms and Conditions of HV Tariff

The maximum and minimum contract demand for different supply voltages is governed as per provisions of the Chhattisgarh State Electricity Supply Code, 2011 and its amendments thereof. Presently, the minimum and maximum permissible load at respective supply voltage are as below:

Supply Voltage	Minimum	Maximum
11 kV	60 kVA	500 kVA
33 kV	60 kVA	15 MVA
132 kV	4 MVA	40 MVA
220 kV	15 MVA	150 MVA

Deviation in contract demand, if any, in respect of the above provisions on account of technical reasons, may be permitted with the approval of the Commission and billing shall be done accordingly. The HV consumers having contract demand exceeding the maximum limit mentioned above for respective voltage of supply shall be billed as specified at Clause 7 of Terms and Conditions of HV Tariff.

Point of Supply

Power will be supplied to consumers ordinarily at a single point for the entire premises. In certain categories like coal mines, power may be supplied at more than one point on the request of consumer subject to technical feasibility. HV industrial consumers can avail separate LV supply as per Clause 4.40 of the Chhattisgarh State Electricity Supply Code, 2011 and its amendments thereof, in the same premises.

Billing demand

The billing demand for the month shall be the maximum demand (in kVA) of the consumer recorded during the billing month or 75% of the contract demand or 60 kVA, whichever is higher, except for the consumers who have reduced their contract demand to zero. The billing demand shall be rounded off to the next whole number.

Determination of Demand

The maximum demand means the highest load measured by sliding window principle of measurement in average kVA at the point of supply of a consumer during any consecutive period of 15 minutes during the billing period.

1. Minimum Charge

The demand charge on contract demand (CD) is a monthly minimum charge whether any energy is consumed during the month or not.

2. Rounding off

The amount of HV energy bill shall be rounded off to the nearest multiple of Rs.10.

For example - the amount of Rs. 12345 will be rounded off to Rs. 12350 and Rs. 12344.95 shall be rounded off to Rs. 12340.

In view of the above provision no surcharge will be levied on outstanding amount, which is less than Rs. 10.

3. Delayed Payment Surcharge

If the bill is not paid by the consumer within the period prescribed (due date) for payment of the bill, a surcharge @ 1.5% per month or part thereof, on the total outstanding amount of the bill (including arrears, if any but excluding amount of surcharge), shall be payable in addition, from the due date of payment as mentioned in the bill.

4. Additional charges for Local Bodies

Every Local Body shall pay an additional charge equivalent to any tax or fee levied by it under the provisions of any law including the Corporation Act, District Municipalities Act or Gram Panchayat Act on the poles, lines, transformers and other installations through which the Local Body receives supply.

5. Advance Payment Rebate

For advance payment made before commencement of consumption period for which bill is to be prepared, a rebate @ 0.5% per month on the amount, which remains with the Licensee at the end of calendar month excluding security deposit, shall be credited to the account of consumer after adjusting any amount payable to the Licensee, subject to the net amount of advance being not less than Rs.20,000 and shall be adjustable in next month's bill.

6. Additional Charge for Exceeding Contract Demand

The consumers should restrict their maximum demand to the extent of contract demand. In case the maximum demand during any month exceeds the contract demand, the tariff at normal rate shall apply only to the extent of the contract demand and corresponding units of energy. The demand in excess of contract demand and corresponding units of energy shall be treated as excess supply. The excess supply so

availed, if any, in any month shall be charged at one and half times of the normal tariff applicable to the consumer (demand and energy charges) for the excess demand to the extent of 20% of contract demand and at the rate of two times of normal tariff if the excess demand is found beyond 20% of contract demand.

Provided that in all categories where TOD is applicable:

i. During Off-Peak Hours, no additional charge will be levied on exceeding Contract Demand up to a maximum limit of 20%.

ii. Beyond 120% of contract demand, excess supply will be billed as per prescribed formula.

iii. Provided that maximum recorded demand during off peak load hours period will not be considered for the purpose of demand charges billing, i.e., demand charges will be levied on maximum recorded demand during normal and peak load hours.

For the purpose of billing of excess supply, the billing demand and the units of energy shall be determined as under:-

i. **Billing Demand / Contract Demand:**

The demand in excess of the contract demand in any month shall be the billing demand/ contract demand of the excess supply.

ii. **Units Energy:**

The units of energy corresponding to kVA of the portion of the demand in excess of the contract demand shall be:

EU= TU (1-CD/MD)

Where

EU - denotes units corresponding to excess supply;

TU - denotes total units supplied during the month;

CD - denotes contract demand; and

MD - denotes maximum demand.

The excess supply availed in any month shall be charged along with the monthly bill and shall be payable by the consumer.

The billing of excess supply at one and half times/two times of the normal tariff applicable to consumer is without prejudice to CSPDCL's right to discontinue the supply in accordance with the provisions contained in the Chhattisgarh State Electricity Supply Code, 2011 and its amendments thereof.

iii. No rebates/incentive is payable on such excess supply.

7. Additional Charge

The HV consumers having contract demand exceeding the maximum limit as prescribed in Clause 1 of terms and conditions of HV tariff shall be levied additional charges at the rate of 5% on Energy Charges of the respective consumer category.

8. Meter Hire

Meter hire shall be charged as per the schedule of miscellaneous charges to all categories of HV consumers.

9. Tax or Duty

The tariff does not include any tax or duty, etc., on electrical energy that may be payable at any time in accordance with any law/State Government Rules in force. Such charges, if any, shall be payable by the consumer in addition to tariff charges.

10. Variable Cost Adjustment (VCA) charge

VCA charge on consumption from April 1, 2018 as per the formula and conditions specified in the CSERC MYT Regulations, 2015 shall be levied in addition to energy charge on all the HV categories including temporary supply.

However, from the date of applicability of this Order, the base values for computation of VCA for succeeding period shall be revised in accordance to this Order.

11. Dispute on applicability of tariff

In case of any dispute on applicability of tariff on a particular category of HV industry/ consumer, the decision of the Commission shall be final and binding.

All the above conditions of tariff shall be applicable to the consumer notwithstanding the provisions, if any, in the agreement entered into by the consumer with the Licensee.

12. Parallel Operation Charges (POC)

Parallel Operation Charges shall be payable by CPP to CSPDCL for its captive and non-captive load at the rate Rs. 21 per kVA/month.

13. Open Access Charges

a) Transmission Charges

The long-term and medium-term open access customers including CSPDCL shall be required to pay the Annual Transmission Charges approved by the Commission. Bills shall be raised for Transmission Charge on monthly basis by the STU (CSPTCL), and payments shall be made by the beneficiaries and long-term and medium-term open access customers directly to the CSPTCL. These monthly charges shall be shared by the long-term open access customers and medium-term open access customers as per allotted capacity proportionately. The monthly transmission charge is Rs. 80.29 Crore.

For short-term open access customer: Rs. 349/MWh (or Rs. 0.3492 per kWh) for the energy computed as per the provisions made in Regulation 33 of the CSERC (Connectivity and Intra State Open access) Regulations, 2011 and its subsequent amendment(s)/revision, if any, at 100% Load Factor for transmission. The same charges shall be applicable for both collective and bilateral transactions at the point or points of injection.

b) Energy losses for transmission

Transmission Losses of 3.22% for the energy scheduled for transmission at the point or points of injection shall be recoverable from open access customers.

c) Wheeling Charges

For long-term, medium-term and short-term open access customer: Rs. 254/MWh (or Rs. 0.254 per kWh) for the energy computed as per the provisions made in Regulation 33 of the CSERC (Connectivity and Intra State Open access) Regulations, 2011 and its subsequent amendment(s)/revision, if any, at 100% load factor for wheeling. The same charges shall be applicable for both collective and bilateral transactions at the point of injection.

d) Energy losses for distribution

Distribution Losses of 6 % for the energy scheduled for distribution at the point or points of injection at 33 kV side of 33/11 kV sub-station shall be recoverable from open access customers.

e) Operating Charges

The short-term open access customer shall pay the Operating Charges to SLDC at the rate of Rs. 2000 per day.

f) Reactive Energy Charges

Reactive Energy Charges shall be levied at the rate of 27 paise/kVARh.

g) Cross Subsidy Surcharge

i. For 220 kV/132 kV consumers Rs. 1.23 per kWh (which is 90% of the computed value of Rs. 1.37 per kWh).

ii. For 33 kV consumers Rs. 1.49 per kWh (which is 90% of the computed value of Rs. 1.65 per kWh).

h) Standby charges

The Standby Charges for consumers availing open access (using transmission and/or distribution system of Licensee) and who draw power from the grid up to the contracted capacity of open access during the outage of generating plant/CPP shall be 1.5 times of the per kWh weighted average tariff of HV consumers, which is Rs. 11.06 per kWh (1.5 times of the average billing rate of Rs.7.38 per kWh). For drawal of power in excess of the contracted capacity of open access, the tariff for availing standby support from the grid shall be two times of the per unit weighted average tariff of HV consumers, which is Rs. 14.75 per kWh (2 times of the average billing rate of Rs. 7.38 per kWh). Further, in case of outage of CPP supplying power to captive/non-captive consumer who has reduced its contract demand to zero and also availed open access draws power of CSPDCL, then billing of such power drawn shall be done as per the standby charges mentioned above.

14. Intra-State Open Access Charges for Renewable Energy transactions

a) Transmission Charges in cash for long-term/medium-term/short-term open access - NIL

b) Wheeling Charges in cash for long-term/medium-term/short-term open access - NIL

c) SLDC Charges (Operating Charges) for long-term/medium-term/short-term open access - NIL

d) Total Transmission Charges or Wheeling Charges or Combination thereof in kind (energy losses) for long-term/medium-term/short-term open access - 6%

e) Cross-Subsidy Surcharge -

i. A consumer availing open access is required to pay the cross-subsidy surcharge.

ii. In case a generating company is an open access customer and is

supplying power to a consumer of the State, the liability of paying cross-subsidy surcharge shall be on the consumer. If a captive generating plant avails open access for supplying power to its captive users, and if the captive users do not fulfil the requirement of captive users in a financial year as prescribed in the Electricity Rules, 2005, then that end user/s shall be liable to pay the Cross-Subsidy Surcharge.

iii. The Cross Subsidy Surcharge payable is 50% of the Cross Subsidy Surcharge determined for that year, which is as under:

a) For 220 kV/132 kV consumers Rs. 0.69 per kWh (which is 50% of the computed value of Rs. 1.37 per kWh).

b) For 33 kV consumers Rs. 0.83 per kWh (which is 50% of the computed value of Rs. 1.65 per kWh).

iv. In case of a consumer receiving power from biomass based power generating plants through open access, if it is established that the biomass based power generating plants supplying power to such consumer has used biomass in the lesser ratio than as mentioned in the guidelines of the Ministry of New and Renewable Energy during any financial year, then the relaxations at (iii) above given to the open access consumer shall be treated as withdrawn for that financial year and the biomass generator shall be liable to pay to CSPDCL full Cross Subsidy Surcharge.

10 DIRECTIVES

The directives passed in the previous Orders of the Commission shall be continued.

10.1 New directives to CSPGCL

(i) The Commission directs CSPGCL to make all possible efforts to complete LDCC work and other pending works on or before January 31, 2019.

10.2 New directives to CSPDCL

(i) The Commission directs CSPDCL to submit the following details along with necessary reconciliation, at the time of Final Truing up for FY 2016-17:

a. Power purchase expenses including break-up of Delayed Payment Surcharge payable/paid to CSPGCL, CSPTCL and CGS, as well as details of Other charges

b. Monthly transmission charges paid to CSPTCL

c. Reconciliation of payment made by CSPDCL to CSPGCL for thermal and hydro generation, with revenue booked by CSPGCL.

d. Reconciliation of payment made by CSPDCL to CSPTCL with revenue booked by CSPTCL.

(ii) The Commission directs CSPDCL to submit the Banking Agreements for all the banking transactions entered into during FY 2016-17, and the reconciliation of each transaction with regard to the respective Banking Agreement, clearly showing the energy units received under forward banking and the units returned under return banking. These details should be submitted along with the Petition for final true-up for FY 2016-17 and each subsequent true-up Petition.

11 LIST OF STATE ADVISORY COMMITTEE (SAC) MEMBER WHO ATTENDED SAC MEETING ON 19.01.2018 ON THE TARIFF PETITION

S. No.	Name
1.	Shri Arun Choubey, President, Shram Kalyan Mandal, Raipur (CG)
2.	Shri Naresh Kumar Somani, Padmnabhpur, Durg (CG)
3.	Shri Dhiraj Kumar Pandey, Kirandul (CG)
4.	Shri D.P.Sharma, Bilaspur, (CG)
5.	Dr. N.D.Londhe, Raipur (CG)

12 LIST OF PERSONS WHO SUBMITTED WRITTEN SUBMISSION

S. No.	Name
1.	Shri D.P.Sharma, Member, State Advisory Committee CSERC, Raipur (CG)
2.	Officer of the Principal Chief Electrical Engineer, South East Central Railway, Bilaspur (CG)
3.	Shri Yogesh Agrawal (President) Chhattisgarh Pradesh Rice Millers Association, Raipur (CG)
4.	Shri Manish Dhuppad (Mahasachiv), Chhattisgarh Mini Steel Plant Association, Raipur (CG)
5.	Shri Shyam Kabra, Telibandha, Raipur (CG)
6.	Dr. Rakesh Gupta, President, Hospital Board, Indian Medical Association, Raipur Branch, Raipur (CG)
7.	Shri Vikas Agrawal (President) Chhattisgarh Mini Steel Plant Association, Raipur (CG)
8.	Shri Manoj Agrawal (President) Chhattisgarh Steel Re-Rollers Association, Raipur (CG)
9.	Shri Ashwin Garg (President), Urla Industries Association, Urla, Raipur (CG)
10.	Shri Ravi Tiwari, Chief Executive (Co-ordination), Shree Cement Ltd., Raipur (CG)
11.	South Eastern Coalfields Ltd., Bilaspur (CG)
12.	Shri Hitesh Varu, Chhattisgarh Yuva Pragatishil Kisan Sangh, Kumhari, Distt. Durg (CG)
13.	Shri Bahadur Ali, Indian Agro & Food Industries Ltd. Rajnandgaon (CG)
14.	Adani Green Energy Ltd., Ahmednagar (Gujrat)
15.	Shri B.K.Bhargava, Uniworth Ltd., Urla, Raipur (CG)
16.	Shri Ravikant Jaiswal, Secretary, Akhil Bhartiya Grahak Panchayat (CG)
17.	Shri Rajkumar Gupta, Kasaridih, Durg (CG),
18.	Shri Lalchand Gulwani (Pradesh Mahamantri) Chhattisgarh Chamber of Commerce and Industries, Raipur (CG)
19.	Shri Suryakant Sur, President, Chhattisgarh State Poultry Farms Association, Raipur (CG)
20.	Shri Dilesh Kumar Gautam, Village Bhedsar, Dist. Durg (CG)
21.	Shri Vikas Upadhyay, President, Raipur Shahar Zila Congress Committee, Raipur (CG)
22.	Shri M.A.Iqbal, Vidyut Karmchari Sangh (Federation), Raipur (CG)
23.	KALYANI, Social Wellfare & Research Organization, Bhilai Nagar Durg (CG)

13 LIST OF PERSONS WHO SUBMITTED COMMENTS DURING HEARING

S.No.	Name
1.	Shri Sanjay Agrawal
2.	Shri Nitin Khandelwal
3.	Shri Vikas Agrawal
4.	Shri Shyam Kabra
5.	Shri Manoj Agrawal
6.	Shri Inderchand Dhadiwal
7.	Shri Radheshyam
8.	Shri Dhanendra Sahu
9.	Shri Ramesh Varlyani
10.	Shri Rajkumar Gupta
11.	Shri Gajendra Singh Koshle
12.	Shri I.K.Verma
13.	Shri Ajay Kumar
14.	Shri Ashvin Garg
15.	Shri Vikas Upadhyay
16.	Shri Dhananjay Singh
17.	Shri Daulal Sahu
18.	Smt. Sunita Sharma
19.	Shri Arun Janghel
20.	Shri Amit Verma
21.	Shri M.A.Iqbal
22.	Indian Medical Association, Chhattisgarh
23.	Shri Radheshyam Sharma

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ORDER

OF

WEST BENGAL ELECTRICITY REGULATORY COMMISSION

FOR THE YEAR 2016 – 2017

IN

CASE NO: TP – 61 / 13 – 14

IN RE THE TARIFF APPLICATION OF THE WEST BENGAL STATE ELECTRICITY DISTRIBUTION COMPANY LIMITED FOR THE YEARS 2014-2015, 2015-2016 AND 2016-2017 UNDER SECTION 64(3)(a) READ WITH SECTION 62(1) AND SECTION 62(3) OF THE ELECTRICITY ACT, 2003

DATE: 28.10.2016

CHAPTER - 1
INTRODUCTION

1.1 West Bengal Electricity Regulatory Commission (hereinafter referred to as the "Commission"), a statutory body under the first proviso to section 82(1) of the Electricity Act, 2003 (hereinafter referred to as the "Act"), has been authorized in terms of section 86 and section 62(1) of the Act to determine the tariff for a) supply of electricity by a generating company to a distribution licensee, b) transmission of electricity, c) wheeling of electricity and d) retail sale of electricity, as the case may be, within the State of West Bengal.

1.2 The West Bengal State Electricity Distribution Company Limited (hereinafter referred to as WBSEDCL), is deemed to be a licensee under the Electricity Act, 2003 in terms of fifth proviso to Section 14 of the Act wholly owned by the State Government and is engaged in the business of distribution of electricity within the area of supply of WBSEDCL in the State of West Bengal and the distribution tariff of WBSEDCL shall be determined by the Commission.

1.3 West Bengal Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2011 has come into effect from 29th April, 2011. The said Tariff Regulations, 2011 was further amended by notifying the West Bengal Electricity Regulatory Commission (Terms and Conditions of Tariff) (Amendment) Regulations, 2012 in the Extra-ordinary edition of The Kolkata Gazette dated 27th August, 2012 and West Bengal Electricity Regulatory Commission (Terms and Conditions of Tariff) (Amendment) Regulations, 2013 in the Extra-ordinary edition of The Kolkata Gazette dated 30th July, 2013.

1.4 In terms of West Bengal Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2011, as amended from time to time (hereinafter referred to as the 'Tariff Regulations'), the tariff applications for the fourth control period consisting of the years 2014 – 2015, 2015 – 2016 and 2016 – 2017 under the Multi Year Tariff (MYT) framework was required to be submitted by WBSEDCL 120 days in advance of the effective date of the said control period. The effective date of the fourth control period is 1st April, 2014.

WBSEDCL submitted an application on 21.11.2013 for extension of the date for submission of their MYT application for the fourth control period upto 31.12.2013 on the ground that they were in a position to submit their FPPCA application for the year 2012 – 2013 on 07.11.2013 but would need some more time to complete their work for the tariff petition for the fourth control period. The Commission, after considering the application of WBSEDCL and also the applications received from some other distribution licensees, the transmission licensee and the generating company in the State for extension of time for submission of MYT application, decided to fix the last date of submission of MYT application for the fourth control period on 31.12.2013, and accordingly issued an order dated 02.12.2013. WBSEDCL, however, submitted another application on 30.12.2013 for further extension of time upto 15.01.2014 on the ground that WBSEDCL purchases power from the Central sector utilities as well as power from state utilities and the tariff for the period 2014-2019 for central sector agencies was yet to be finalized by the Central Electricity Regulatory Commission (in short 'CERC'). The Commission vide order dated 31.12.2013, therefore, further extended the date of submission of MYT application for the fourth control period upto 15.01.2014. Again, WBSEDCL submitted another application on 13.01.2014 for further extension of time upto 15.02.2014 on the ground that WBSEDCL could not finalize their power purchase cost as the required information regarding proposed power purchase cost in respect of different power stations of West Bengal Power Development Corporation Limited (in short 'WBPDCL') has not been received from WBPDCL and the tariff of central sector agencies were yet to be finalized by CERC. This was not considered by the Commission. WBSEDCL had failed to submit their MYT application within 15.01.2014. WBSEDCL further prayed for allowing minimum another one month time to submit their application vide their letter dated 22.01.2014 stating, inter-alia, that average cost of supply and the tariff structure for different categories of consumers would only be determined after finalization of power purchase cost as the power purchase cost contributes 70% to 75% of

Aggregate Revenue Requirement (ARR). This was also not considered by the Commission. The Commission vide letter dated 24.01.2014 directed WBSEDCL to submit their MYT application for the fourth control period without any further loss of time. WBSEDCL submitted their MYT application for the fourth control period on 24.02.2014. The application is for determining the revenue requirements and tariff of WBSEDCL for the fourth control period comprising three ensuing years i.e. 2014 – 2015, 2015 – 2016 and 2016 – 2017 under MYT framework. On scrutiny, it transpired that some more data, forms and documents were yet to be submitted by WBSEDCL; and the same were submitted by WBSEDCL on 03.03.2014 in pursuance to the communication sent to WBSEDCL vide Commission's letter dated 27.02.2014. WBSEDCL also made required submission on 04.03.2014 in reply to Commission's letter dated 04.03.2014.

1.5 The tariff application submitted on 24.02.2014 along with the information / data, documents submitted on 03.03.2014 and 04.03.2014, was admitted by the Commission in case No.TP-61/ 13-14, which was communicated to WBSEDCL on 04.03.2014 with the direction to publish the gist of the tariff application as approved by the Commission in the newspapers and also on their website, as specified in the Tariff Regulations. The gist was, accordingly, published simultaneously on 5th March, 2014 in the newspapers - (i) 'Business Line' (English), (ii) 'The Telegraph' (English), (iii) 'Anandabazar Patrika' (Bengali), (iv) 'Khabar – 365 din' (Bengali), (v) 'Kalam' (Bengali), (vi) 'Sanmarg' (Hindi) and (vii) 'Akhbar-E-Mashriq' (Urdu). The gist along with the tariff application was also posted on the website of WBSEDCL. The publication invited the attention of all interested parties, stake holders and the members of the public to the application for determination of tariff of WBSEDCL for the fourth control period and requested for submission of suggestions, objections and comments, if any, on the tariff application to the Commission by 11th April, 2014 at the latest. Opportunities were also offered to all to inspect the tariff application and to take

copies thereof. Some correspondences were also made with WBSEDCL which were also published on the website of the Commission from time to time.

1.6 Objections to / comments on the aforementioned tariff petition of WBSEDCL for the fourth control period were received by the Commission from the following objectors within the stipulated time i.e., 11th April, 2014.

1 Ess Dee Aluminium Limited.
2 Ganatrantik Nagarik Samity, Howrah
3 Indus Tower Limited
4 Modern India Concast Limited
5 Eastern Railway
6 South Eastern Railway
7 Indian Tea Association
8 Rashmi Metaliks Limited.
9 Sri Gayatri Minerals Pvt. Ltd.
10 Rohit Ferro-Tech Ltd.
11 Sri Vasavi Industries Ltd.
12 CESC Limited.

1.7 The Commission, thereafter, in accordance with the provisions of the Act and Tariff Regulations, passed the tariff order dated 04.03.2015 in respect of WBSEDCL in case no. TP-61/13-14 for 2014 – 2015 determining the Aggregate Revenue Requirement (in short 'ARR') of WBSEDCL for each year of the fourth control period, along with the tariffs of WBSEDCL for 2014 – 2015. The objections and suggestions on the tariff petition of WBSEDCL for the fourth control period were dealt with separately in the tariff order dated 04.03.2015. The analyses and findings for determination of the aforesaid ARR and tariffs of WBSEDCL were recorded in the tariff order dated 04.03.2015 in respect of WBSEDCL for 2014 – 2015. WBSEDCL on receipt of the aforesaid tariff order of 2014 – 2015 submitted its gist for approval and the same was approved by the

Commission on 11.03.2015. Accordingly, the gist was published in newspapers and on the website of WBSEDCL on 14.03.2015.

1.8 The Commission subsequently passed the tariff order dated 10.08.2015 in respect of WBSEDCL for the year 2015 – 2016 determining the revenue recordable through tariff by WBSEDCL during the year 2015 – 2016 and the tariff of WBSEDCL for the year 2015 – 2016 on the basis of ARR determined for 2015 – 2016 in the tariff order dated 04.03.2015 and after effecting necessary adjustments as per provisions of the Tariff Regulations. The gist of the tariff order dated 10.08.2015 was published in the newspapers and on the website of WBSEDCL on 20.08.2015.

1.9 The Commission now proceeds to determine the revenue recoverable through tariff by WBSEDCL during the year 2016 – 2017 as also the tariff of WBSEDCL for 2016 – 2017 on the basis of ARR determined for 2016 – 2017 in the tariff order dated 04.03.2015 after necessary adjustments in accordance with the Tariff Regulations as detailed in the subsequent chapter.

SUMMARISED STATEMENT OF AGGREGATE REVENUE REQUIREMENT & REVENUE RECOVERABLE THROUGH TARIFF FOR THE YEAR 2016 – 2017

2.1 As stated in the preceding chapter, the Commission determined the ARR of WBSEDCL separately for each of the three years of the fourth control period covering the years 2014 – 2015, 2015 – 2016 and 2016 – 2017 in the tariff order dated 04.03.2015 for 2014 – 2015 based on the analysis and findings recorded in that order. Such summarized statement of ARR for 2016 – 2017 was given in Annexure-6C to the tariff order dated 4th March, 2015.

2.2 The Commission in the tariff order dated 04.03.2015 in case no. TP-61/13-14 considered for adjustment of a total amount of Rs. 165488.00 lakh (Rs. 33150.00 lakh + Rs. 132338.00 lakh) being the part release of balance regulatory assets created in the APR orders for different years upto 2012 – 2013 along with the carrying cost thereon in connection with determination of revenue recoverable through tariff for the year 2016 – 2017 as detailed in paragraphs 6.2 and 6.3 of the order dated 04.03.2015. The Additional Secretary to the Government of West Bengal in the Department of Power & NES vide letter no. 148-PO/O/VS/55-30/2016 dated 5th September, 2016 has communicated that in exercise of the power conferred by section 108 read with section 65 of the Electricity Act, 2003, the State Government has agreed for extension of grant equivalent to outstanding loan and interest for an amount of Rs. 456316.00 lakh to WBSEDCL and WBPDCL in the following manner:

WBSEDCL	Rs. 264709.00 lakh
WBPDCL	Rs. 191607.00 lakh

It has also been mentioned in the aforesaid letter of the Additional Secretary to the Government of West Bengal, Department of Power & NES that the grant may be adjusted with the balance regulatory assets upto 2012 – 2013 and realizable amount through APR and FCA / FPPCA claim of the two utilities from 2013 –

2014 onwards. It has also been stated in the said letter that the Finance Department, Government of West Bengal has given in-principle concurrence for the same vide its U.O. No. 0766 dated 21.07.2016. The Commission accordingly decides to make negative adjustment of Rs. 165488.00 lakh out of the grant of Rs. 264709.00 lakh as agreed to by the State Government to extend in respect of WBSEDCL against balance regulatory assets of Rs. 165488.00 lakh created in the APR orders upto the year 2012 – 2013 in determining the revenue recoverable through tariff by WBSEDCL for the year 2016 – 2017 as per direction given by the State Government vide the above mentioned letter dated 5th September, 2016. The balance amount of grant of Rs. 99221.00 lakh (Rs. 264709.00 lakh – Rs. 165488.00 lakh) will be adjusted subsequently against any recoverable amount through APR and FPPCA claim for the year 2013 – 2014 onwards. APR order of WBSEDCL for the year 2013 – 2014 has not yet been finalized, and as such, no adjustments have been considered for the same.

2.3 The Commission in the tariff order dated 04.03.2015 also considered for an adjustment of a total amount of Rs. 59539.13 lakh (Rs. 29448.00 lakh + Rs. 30091.13 lakh) being the amount payable by WBSEDCL to WBPDCL in instalments on account of tariff order dated 30.12.2011 of new units of WBPDCL for the years 2010 – 2011, 2011 – 2012 and 2012 – 2013 and the amount payable by WBSEDCL to WBPDCL on account of FCA of WBPDCL for the year 2012 – 2013 vide orders dated 06.06.2014 and 11.12.2014 as detailed in paragraphs 6.2 and 6.3 of the order dated 04.03.2015 in respect of WBSEDCL in connection with determination of the revenue recoverable through tariff for the year 2016 – 2017. The Commission decides to continue with the adjustment of the said amount in determination of revenue recoverable through tariff for 2016 – 2017 in this order also.

2.4 In the tariff order for 2016 – 2017 in respect of West Bengal Power Development Corporation Limited (WBPDCL) the Commission has made adjustment in the

fixed cost of Bandel TPS for the year 2016 – 2017 in terms of clause (v) of regulation 2.5.3 of the Tariff Regulations as detailed in paragraph 2.3 and 2.4 of the tariff order of WBPDCL. The positive adjustment made in fixed cost of Bandel TPS of WBPDCL for the year 2016 – 2017 is Rs. 657.90 lakh. The Commission decides to make adjustment in the power purchase cost as well as ARR of WBSEDCL for 2016 – 2017 also for the adjustment made in fixed cost of Bandel TPS for the year 2016 – 2017 on the basis of purchase of power projected by WBSEDCL from Bandel TPS in the year 2016 – 2017. Such adjustment in ARR of WBSEDCL for the year 2016 – 2017 comes to Rs. 345.58 lakh and the same is considered for adjustment in power purchase cost as per provisions of the Tariff Regulations.

2.5 In the tariff order dated 10.08.2015 in respect of WBSEDCL for the year 2015 – 2016, the Commission came across the correspondences between WBSEDCL and CESC Limited and found that the plan for purchase of power by CESC Limited from WBSEDCL during the year 2016 – 2017 has been changed with effect from 04.06.2015 from the one considered in the tariff order dated 04.03.2015 in case no. TP-61/13-14. The revised plan for purchase of power by CESC Limited from WBSEDCL as appeared from the correspondence is as follows:

Upto 03.06.2015	Maximum demand – 330 MW
2 months from 04.06.2015	Maximum demand – 100 MW

Any additional power required beyond 100 MW under exigency, the excess drawal will be done at single part tariff

It also appears that Department of Power & NES, Government of West Bengal, approved the plan for purchase of power by CESC Limited from WBSEDCL vide their letter no. 124-PO/O/C-111/3R-05/2014 dated 05.06.2015 as forwarded by WBSEDCL under their letter no. PTR/SERC/673 dated 08.06.2015 for final decision of WBERC as far as tariff determination is concerned.

2.6 In the tariff order dated 04.03.2015, the energy sale to CESC Limited during the year 2016 – 2017 was considered at 685 MU with 385 MW as agreed annual maximum drawal. The power purchase requirement of WBSEDCL and cost thereof were admitted accordingly as shown in **Annexure – 4A** to the tariff order dated 04.03.2015. The energy sale to CESC Limited and revenue income therefrom were also determined and shown in Annexure – 6I to the tariff order dated 04.03.2015.

2.7 In view of the revised plan of power purchase by CESC Limited from WBSEDCL, the power purchase requirement and cost thereof as well as the revenue income from sale of power to CESC Limited as determined for the year 2016 – 2017 in the tariff order dated 04.03.2015 need to be revised. In the tariff order dated 10.08.2015 in respect of WBSEDCL for the year 2015 – 2016, the Commission had not considered any energy sale by WBSEDCL to CESC Limited beyond 03.08.2015 as per the revised plan of power purchase by CESC Limited from WBSEDCL as mentioned in paragraph 2.5 above. Thus, the Commission does not consider any sale by WBSEDCL to CESC Limited during the year 2016 – 2017. The Commission, therefore, decides to revise the revenue income from sale of power to CESC Limited as nil to arrive at the revenue recoverable from the consumers of WBSEDCL during the year 2016 – 2017. The Commission also decides to revise the power purchase cost of WBSEDCL for the year 2016 – 2017 to arrive at the revenue recoverable during the year 2016 – 2017.

2.8 In the tariff petition for the fourth control period comprising years 2014 – 2015, 2015 – 2016 and 2016 – 2017, WBSEDCL projected the energy sale to own consumers at 24785.10 MU, 27232.10 MU and 29921.10 MU respectively considering an annual average growth of 9.9% on the estimated energy sale of 22544.00 MU for the year 2013 – 2014. No suggestion and objections were received on the sale projection of WBSEDCL while the gist of the tariff

application for the fourth control period was published inviting suggestions and objections from the public. The Commission admitted the sale of energy to its own consumers as projected by WBSEDCL for all the three years in the tariff order dated 04.03.2015.

2.9 The Commission observes from the documents submitted along with the application of APR filed by WBSEDCL for the year 2013 – 2014 that the actual energy sale to WBSEDCL's own consumers during the year 2013 – 2014 was 20625.56 MU which is much less than 22544.00 MU, the estimated energy sale to own consumers for base year 2013 – 2014, as considered for projection for the years 2014 – 2015, 2015 – 2016 and 2016 – 2017 in the tariff petition by WBSEDCL and admitted by the Commission in the tariff order dated 04.03.2015. Moreover, the Commission observes from the documents submitted by WBSEDCL along with APR applications for the years 2010 – 2011, 2011 – 2012 and 2012 – 2013 and also the APR application for 2013 – 2014 that the compounded annual growth rate of energy sale to its own consumers are 5.05%. No suggestion, objections and comments on the sale of energy to its own consumers were received against the gist published for the APR applications for the years 2010 – 2011, 2011 – 2012, 2012 – 2013 and 2013 – 2014.

2.10 If the Commission considers 6.00% annual growth for the ensuing years 2014 – 2015, 2015 – 2016 and 2016 – 2017, against the actual growth of 5.05% established during last four years, on the actual energy sale to its own consumers during 2013 – 2014, the estimated energy sale to its own consumers for 2016 – 2017 comes at 24565.37 MU as per the details given below:

Actual Energy sale to own consumers (MU)				estimated energy sale to own consumers (MU) considering 6.00% annual growth		
2010 - 2011	2011 – 2012	2012 – 2013	2013 – 2014	2014 – 2015	2015 – 2016	2016 – 2017
17790.17	18790.60	20534.08	20625.56	21863.09	23174.88	24565.37

2.11 The Commission, however, decides to consider the energy sale to its own consumers as 24500 MU for the year 2016 – 2017 as against the energy sale of 29921 MU to its own consumers considered for the year 2016 – 2017 in the tariff order dated 04.03.2015 and to revise the power purchase cost accordingly in terms of clause (xi) of regulation 2.5.3 of the Tariff Regulations.

2.12 There will be a reduction in the requirement of purchase of power by WBSEDCL during the year 2016 – 2017 than that of what was considered in the tariff order dated 04.03.2015 for the year 2016 – 2017 also due to the revised sale to CESC Limited as discussed in paragraphs 2.6 and 2.7 above. The revised power purchase quantum works out at 35364.18 MU (34975.00 MU + 389.18 MU) as against the quantum of 42965.13 MU as admitted for the year 2016 – 2017 in the tariff order dated 04.03.2015. The revised energy balance for the year 2016 – 2017 is given in Annexure – 2A.

2.13 In view of the above, the Commission considers to make adjustment in the power purchase plan and the cost thereof as per provisions of the Tariff Regulations. The revised power purchase cost determined after considering adjustment as per paragraphs 2.4, 2.7, 2.8, 2.9, 2.10, 2.11 and 2.12 above is given below:

Revised power purchase cost of WBSEDCL for the year 2016 – 2017			
Description	**Energy (MU)**	**Amount (Rs. in lakh)**	**Average rate (Paise / kWh)**
Power Purchase as per tariff order dated 04.03.2015	42965.13	1469958.94	342.13
Adjustment on account of revised fixed cost of BTPS of WBPDCL as mentioned in paragraph 2.4		345.58	
Total	**42965.13**	**1470304.52**	**342.21**
Revised quantum of power purchase (refer paragraph 2.12)	35364.18	1210197.60	342.21

2.14 The Commission in the tariff order dated 04.03.2015 decided that the benefit from sale of energy to persons other than the consumers and licensee of the Commission will be passed on to the consumers / licensee on actual basis through APR of the concerned year instead of tariff order on projection basis. The quantum of energy for sale to persons other than consumers and licensees during the year 2016 – 2017 remains same at 3542.17 MU as considered for the year 2016 – 2017 in the tariff order dated 04.03.2015. But, there is a change in expenses attributable to sale to persons other than consumers and licensee due to change in average power purchase cost as per adjustment mentioned in paragraph 2.13 above. As already decided in the tariff order dated 04.03.2015, the Commission will consider the benefit from sale of energy to persons other than consumers and licensees on actual basis in the APR for 2016 – 2017.

2.15 The revised Net Aggregate Revenue Requirement of WBSEDCL for the year 2016 – 2017 is given in Annexure – 2B.

2.16 In view of the revised power purchase plan of CESC Limited as stated above the quantum of sale to CESC Limited and the revenue income from sale to CESC Limited have been considered as zero. The total revenue income from sale to licensees and Sikkim during the year 2016 - 2017 thus comes to Rs. 38464.00 lakh as shown in the Table below:

ENERGY SALE BY WBSEDCL TO OTHER LICENSEE OF WEST BENGAL AND SIKKIM			
Sl. No.	PURCHASER OF POWER	ENERGY SALE IN MU	REVENUE IN Rs. LAKH
		2016-17	2016-17
1	SALE TO CESC	0.00	0.00
2	SALE TO DPSC	431.30	23895.00
3	SALE TO DPL	200.00	13620.00
4	SALE TO SIKKIM AS PER CONTRACT	47.00	949.00
5	SALE TO LICENSEE (1+2+3+4)	678.30	38464.00

2.17 Accordingly, the revenue recoverable through tariff of WBSEDCL for the year 2016 – 2017 works out as under:

Amount in Rupees in Lakh

REVENUE RECOVERABLE BY WBSEDCL THROUGH TARIFF IN 2016 – 2017				
Sl. No.	Particulars	Generation	Distribution	Total
1	Net Aggregate Revenue Requirement for 2016-17 as per Annexure – 2B	43654.95	1624113.43	1667768.38
2	Part release of regulatory assets crated in APR for 2008 – 2009 (Refer paragraph 2.2 above)	0.00	33150.00	33150.00
3	Payable arrear against tariff order dated 30.12.2011 of new units of WBPDCL (Refer paragraph 2.3 above)	0.00	29448.00	29448.00
4	Payable FCA of WBPDCL for the year 2012 – 2013 vide orders dated 06.06.2014 and 11.12.2014 (Refer paragraph 2.3 above)	0.00	30091.13	30091.13
5	Adjustment of APR of WBSEDCL 2012 – 2013 (Refer paragraph 2.2 above)	0.00	132338.00	132338.00
6	Carrying cost of APR of WBSEDCL for 2012 – 2013	0.00	0.00	0.00
	Revenue Recoverable [sum (1) to (6)]	43654.95	1849140.56	1892795.51
7	Less: Adjustment of grant admitted by Government of West Bengal (refer paragraph 2.2)	0.00	165488.00	165488.00
8	Net amount recoverable through tariff during 2016 – 2017	43654.95	1683652.56	1727307.51

2.18 The Commission has also worked out the average tariff for the consumers of WBSEDCL for 2016 – 2017 and the same is shown in the Table below:

AVERAGE TARIFF FOR THE CONSUMERS OF WBSEDCL in 2016 – 2017			
Sl. No.	**Particulars**	**Unit**	**Total**
1	Total Revenue to be recovered through tariff	Rs. in Lakh	1727307.51
2	Revenue from sale of power to Licensee and Sikkim (Refer paragraph 2.16)	Rs. in Lakh	38464.00
3	Revenue recoverable from sale of power to the consumers [(3)= (1)-(2)]	Rs. in Lakh	1688843.51
4	Projected quanta of energy for sale to consumers (Refer paragraph 2.11).	MU	24500.00
5	Average tariff for the consumers for the year 2016 – 2017 [(5)=(Sl.3)x10/(Sl.4)]	Paise / kWh	689.32

ANNEXURE – 2A
REVISED ENERGY BALANCE

Sl. No	Energy Input	Unit	Derivatives	2016-2017 (Revised)
1	Generation	MU	A	1402.33
2	Auxiliary Consumption	MU	B1	19.74
3	Units delivered to system from generation [Form 1.5]	MU	C=A-B1	1382.59
4	Units delivered to system from generation at EHV	MU	C1=C-D-C2	1357.21
5	Units delivered to system from generation at HV	MU	D	25.38
6	Quantum of Infirm power included in 3	MU	C2	0.00
7	Energy Purchased at EHV	MU	E	34975.00
8	Power Drawn under UI Mode	MU	F	0.00
9	Energy Received for Wheeling at 132 KV	MU	G	0.00
10	Less: CTU Loss	MU	H	282.65
11	Overall Gross Energy Input to WBSETCL System	MU	I=C1+E+F+G-H	36049.57
12	WBSETCL Loss	%	J	3.40%
13	WBSETCL Loss in MU	MU	K=I*J/100	1225.69
14	Net Energy available from WBSETCL System	MU	L=I-K	34823.88
15	Energy sold to person other than consumer and licensee at EHV	MU	M	3542.17
16	Energy sold to licensee at EHV and Sale to Sikkim	MU	N	247.00
17	Additional units allowed by Commission for sale to other licensees	MU	O	8.69
18	Units sold/ used for pumping energy of Pumped Storage Project	MU	P	1119.00
19	Trans. Loss for pumping energy	MU	Q	39.39
20	SWAP OUT	MU		
21	UI OUT	MU	R	
22	Total Energy goes out from WBSETCL System at EHV	MU	S=M+N+O+P+Q+R	4956.24
23	Net Energy available from WBSETCL System to WBSEDCL	MU	T=L-S	29867.64
24	Own sent Out at 33 KV and below	MU	U=C2	25.38
25	Energy purchased by WBSEDCL at 33 KV & below	MU	V	389.18
26	Energy Received for Wheeling at 33 KV [Form 1.9a]	MU	W	17.00
27	Total Energy available to WBSEDCL system	MU	X=T+U+V+W	30299.19
	Energy Utilization [Form 1.7]			
28	Units sold to consumers	MU	Y	24500.00
29	Energy sold to licensee below EHV level [Form 1.9b]	MU	Z	431.30
30	Units wheeled [Form 1.9c]	MU	AA	15.64
31	Additional units allowed for wheeling	MU	AB	1.36
32	Units utilized in own premises including construction power	MU	AC	50.00
33	Unutilized Units	MU	AD	5300.89
34	Total Energy	MU	sum(Y:AD)	30299.19
35	Dist Loss in percentage			17.50%

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ANNEXURE – 2B
SUMMARISED STATEMENT OF AGGREGATE REVENUE REQUIREMENT OF WBSEDCL FOR 2016 – 2017

Sl No	ITEM	ARR FOR 2016 – 2017 (Rs. in lakh)		
		ADMITTED		
		Generation	Distribution	Total
1	Generation charge(fuel)	0.00	0.00	0.00
2	Power Purchase Cost	0.00	1210197.60	1210197.60
3	Transmission charges payable to WBSETCL	0.00	117845.19	117845.19
4	CTU Charges	0.00	50963.00	50963.00
5	ERPC Charges	0.00	15.00	15.00
6	System operation charges payable to POSOCO	0.00	410.00	410.00
7	SLDC charges	0.00	2619.00	2619.00
8	Salary & wages including other staff welfare benefits	3736.00	102518.81	106254.81
9	Terminal benefits	1508.53	41395.43	42903.96
10	Cost of Outsourcing excluding manpower and vehicle hiring)	0.00	11985.00	11985.00
11	Cost of Outsourcing for manpower and vehicle hiring	0.00	21090.00	21090.00
12	Rates & taxes	0.00	1484.00	1484.00
13	Operation and Maintenance	4707.65	48886.00	53593.65
14	Complaint Management Mechanism	0.00	407.00	407.00
15	Insurance	0.00	832.00	832.00
16	Depreciation	11501.00	57541.00	69042.00
17	Interest on loan	21264.60	55015.31	76279.91
18	Other finance charges	54.75	731.36	786.11
19	Interest on bond for pension fund	1536.00	11469.00	13005.00
20	Lease Rental Charges for MPLS-VPN service	0.00	3153.00	3153.00
21	Bad Debts	0.00	0.00	0.00
22	Minimum Alternate Tax	0.00	996.92	996.92
23	Interest on Consumers' Security Deposit	0.00	8845.00	8845.00
24	Reserve for unforeseen exigencies	0.00	0.00	0.00
25	Interest on Working Capital	0.00	0.00	0.00
26	Return on equity	0.00	37236.21	37236.21
27	Gross Aggregate revenue requirement	44308.53	1785635.83	1829944.36
28	Less income from non-tariff sources	0.00	37035.86	37035.86
29	Less interest credit	653.58	3269.94	3923.52
30	Less: Recovery of expenses attributable for sale of energy to persons other than consumers & licensees	0.00	121216.60	121216.60
31	Net aggregate revenue requirement	43654.95	1624113.43	1667768.38

CHAPTER – 3
TARIFF ORDER FOR 2016-17

3.1 In the previous chapter, the Commission has determined for WBSEDCL the revenue recoverable through tariff during 2016 – 2017 and the average tariff for the consumers of WBSEDCL for 2016 – 2017 as well. The Commission now proceeds to determine the tariff schedule applicable to the consumers of WBSEDCL and also the associated conditions of tariff of WBSEDCL for 2016 – 2017. The Commission is passing other orders also as mentioned in subsequent paragraphs.

3.2 WBSEDCL proposed a tariff structure in their MYT application for all the three ensuing years 2014 – 2015, 2015 – 2016 and 2016 – 2017 based on their projected ARR but without taking into cross-subsidy related objective under the guiding factors of tariff determination as specified in paragraph (vii) of regulation 2.2.1 of the Tariff Regulations. The Commission has redesigned the tariff structure to meet the revenue recoverable through tariff during 2016 – 2017 based on the following principles:

i) None of the class of consumers based on purpose of supply has been charged with a tariff in order to see that the average tariff for that category of consumers remains within 120% of the average cost of supply (689.32 paise / kWh as in paragraph 2.18 of this order).

ii) Considering the difference in service quality for rural and urban area as per Standard of Performance Regulations and in line with the opinion of the Commission in paragraph 3.3.3 of the tariff order dated 04.03.2015, the Commission continues to keep separate tariff rate for certain categories of consumers under L&MV class in the tariff order of this year in line with the past trend. The above separate tariff also helps in

achieving the objective of the previous point of maintaining average tariff of any class of consumers at a price so that it does not exceed 120% of the average cost of supply.

iii) At the same time, the Commission in line with paragraph 8.3 (i) of National Tariff Policy has reduced the suggested tariff of WBSEDCL suitably for lifeline consumer.

iv) In order to avoid tariff shock as per paragraph 5.5.3 of National Electricity Policy, the Commission has also kept the average tariff for irrigation is below 80% of the average cost of supply.

v) For the category of consumers whose average tariff is more than 100% of the average cost of supply in the tariff order of 2015 – 2016, the tariff has been fixed in a way that in this tariff order of 2016 – 2017 the percentage ratio of average tariff of such category of consumers to average cost of supply in 2016 – 2017 tariff order has been slightly reduced than that of 2015 – 2016.

vi) After maintaining the above principles only the Commission has tried to follow the approach of WBSEDCL in their tariff design on remaining class of consumers other than those as mentioned above to the extent it is considered appropriate by the Commission.

Accordingly the tariff schedule applicable to the consumers of WBSEDCL in 2016-17 and the associated terms and conditions are as follows:

Consumers belonging to Labour Line, Life Line consumers, Domestic (Rural) and Domestic (Urban) category will fall under L&MV Domestic consumers (below 50KVA). Commercial (Rural), Commercial (Urban) and consumers covered under Rates A (Cm-II), A (Cm-III) and A (Cm)-CP will fall under L&MV Commercial consumers (below 50 KVA).

The tariff schedule as applicable to the consumers of WBSEDCL in the year 2016 – 2017 is given at Annexure – 3A1 for LV and MV consumers under quarterly billing cycle, at Annexure – 3A2 for LV and MV consumers under monthly billing cycle and at Annexure – 3A3 for HV and EHV consumers. The Commission has decided to give certain directives to WBSEDCL on various matters. These are to be found at Chapter – 4. Except rate B-IDI, B-IDIT, B-IDC, B-IDCT, C-ID, C-IDT, D-ID and D-IDT, all the rates under L&MV category are applicable for the supply below 50 KVA. Details of different tariff schemes of different classes of consumers and various associated terms and conditions are specified in various regulations and in Annexure – C1 and Annexure – C2 to the Tariff Regulations. Other associated conditions of tariff of WBSEDCL for 2016 – 2017 shall be as follows:

3.2.1 **Load Factor Rebate/ Surcharge**:

3.2.1.1 In order to reduce the overall system T&D loss and to flatten the load curve by improving the existing system load factor of WBSEDCL, the voltage-wise graded load factor rebate applicable for the EHV and HV industrial consumers and L&MV industrial consumer under rate (B-IDI and B-IDIT) will be as per the following table:

LOAD FACTOR REBATE (Paise / kWh)

For the Year 2016-17				
Range of Load Factor (LF)		Supply Voltage		
		Below 33 kV	33 kV	Above 33 kV
Above 55%	Up to 60%	1	2	3
Above 60%	Up to 65%	7	8	9
Above 65%	Up to 70%	14	29	39
Above 70%	Up to 75%	20	35	45
Above 75%	Up to 80%	25	40	50
Above 80%	Up to 85%	30	45	55
Above 85%	Up to 90%	35	50	60
Above 90%	Up to 92%	40	55	65
Above 92%	Up to 95%	45	60	70
Above 95%		50	65	75

The above load factor rebate shall be applicable on total quantum of energy consumed in the billing period. (For example a 33 kV industrial consumer at 85% load factor shall be eligible for a rebate @ 45 paise / kWh on the total quantum of energy consumed in the billing period).

3.2.1.2 Industrial consumer whose contract demand is 1.5 MVA or above will get additional rebate as per following table subject to the condition that payment is made within the due date.

Additional Load Factor Rebate(paise/kWh)	
Load Factor	2016-17
Above 65% but upto 80%	20
Above 80%	35

3.2.1.3 Load factor surcharge shall continue at the prevailing rate for those categories of consumers to whom these are applicable at present including the L&MV industrial consumer under rate (B-IDI, B-IDIT, B-IDC and B-IDCT).

3.2.1.4 Load factor rebate and load factor surcharge shall be computed in accordance with the formula and associated principles given in regulations 3.9.2, 3.9.3 and

3.9.4 of the Tariff Regulations and at the rates mentioned in paragraphs 3.2.1.1 to 3.2.1.3 above

3.2.2 **Fixed / Demand Charge**:

i) The fixed charge shall be applicable to different categories of consumers at the rates as shown in Annexure 3A1 and Annexure 3A2 of this tariff order.

ii) The demand charge shall be applicable to different categories of consumers as per rates shown in Annexure 3A2 and Annexure 3A3 to this order on the basis of recorded demand as specified in regulation 4.3.3 of the Tariff Regulations subject to the conditions as specified in the Tariff Regulations.

iii) When a new consumer gets connected to the system, the computation of fixed charge or demand charge for that month shall be made pro-rata for the number of days of supply in that particular month.

3.2.3 Subject to the condition as specified in regulation 4.13 of the Tariff Regulations, the minimum charge shall continue at the existing level for all consumers.

3.2.4 In case of short term supply to Pandals for community religious ceremonies, a rebate of 30 paise / kWh on energy charge of each unit will be given prospectively from the date of this order if the entire illumination is done with LED.

3.2.5 For all consumers, excluding consumers having pre-paid meters, rebate shall be given @ 1% of the amount of the bill excluding meter rent, taxes, duties, levies and arrears (not being the arrears due to revision of tariff) if the payment is made within the due date.

3.2.6 A special rebate of 25 paise/kWh for 2016-17 on energy charge shall be given to the cold storage or dairy with chilling plant having contractual load between

50 KVA and 125 KVA under C-ID and C-IDT tariff category. This rebate shall be given before giving effect to the rebate mentioned in paragraph 3.2.5.

3.2.7 In order to encourage one time payment for three months bill a special rebate of 10 paise per unit for 2016 – 2017 on energy charge shall be given to the domestic and commercial consumers under LV and MV categories covered by quarterly billing cycle under normal or normal-TOD tariff scheme if the payment is made for the quarter at a time within the due date stipulated for the first month of the quarter. This rebate shall be in addition to rebate under paragraph 3.2.5 for normal meter or normal TOD meter and will be given effect after giving effect to the rebate under paragraph 3.2.5.

3.2.8 In addition to the rebate under paragraphs 3.2.4, 3.2.5, 3.2.6 and 3.2.7 above, if the payment is made within due date, then an additional rebate of 1% of the amount of the bill excluding meter rent, taxes, duties, levies and arrears (not being arrears due to revision of tariff) would be allowed to the consumers who would pay their energy bills through e-payment facility (through web by using net banking, debit card, credit card, electronic clearing scheme). A rebate of Rs. 5.00 will be admissible prospectively if any consumer opt for e-bill following regulation 3.1.10 of West Bengal Electricity Regulatory Commission (Electricity Supply Code) Regulations, 2013. These rebates are applicable after giving effect to the rebate under paragraphs 3.2.4, 3.2.5, 3.2.6 and 3.2.7.

3.2.9 The additional 1% rebate as mentioned in paragraph 3.2.8 above shall also be admissible if the payment of energy bill is made within the due date through valued card wallet system or USSD or Instapay of Banks or online payment through any mobile software application. However, this is effective from 1st August, 2016. This rebate shall be given after giving effect to rebate mentioned in paragraphs 3.2.4, 3.2.5, 3.2.6 and 3.2.7 above.

3.2.10 **Power Factor Rebate/ Surcharge**:

3.2.10.1 The power factor rebate and surcharge shall continue for all categories of consumers under HV & EHV including the consumers under rates T(A), T(B) and T(M) and also for L&MV industrial consumers under rate B-IDI and B-IDIT to whom those are already applicable at present. The power factor rebate and surcharge shall also be applicable to the consumers under rates B-IDC, B-IDCT, D-ID, D-IDT, C-ID and C-IDT, to whom the same are not applicable at present, from the consumption month of January, 2017. The rate of rebate and surcharge and the methods of calculation of such rebate and surcharge for the year 2016-17 are given below:

Power Factor (PF) Range	Power Factor Rebate & Surcharge on Energy Charge in Percentage for the year 2016-17							
	For Consumers under TOD Tariff						For Consumers under non-TOD Tariff	
	Normal Period (6.00 AM to 5.00 PM)		Peak Period (5.00 PM to 11.00 PM)		Off-peak Period (11.00 PM to 6.00 AM)			
	Rebate in %	Surcharge in %	Rebate in %	Surcharge in %	Rebate in %	Surcharge in %	Rebate in %	Surcharge in %
PF > 0.99	8.00	0.00	9.00	0.00	7.00	0.00	5.00	0.00
PF > 0.98 & PF ≤ 0.99	7.00	0.00	8.00	0.00	6.00	0.00	4.00	0.00
PF > 0.97 & PF ≤ 0.98	5.00	0.00	6.00	0.00	4.00	0.00	3.00	0.00
PF > 0.96 & PF ≤ 0.97	4.00	0.00	5.00	0.00	3.00	0.00	2.50	0.00
PF > 0.95 & PF ≤ 0. 96	3.00	0.00	4.00	0.00	2.00	0.00	2.00	0.00
PF > 0.94 & PF ≤ 0.95	2.25	0.00	3.00	0.00	1.50	0.00	1.50	0.00
PF > 0.93 & PF ≤ 0.94	1.50	0.00	2.00	0.00	1.00	0.00	1.00	0.00
PF > 0.92 & PF ≤ 0.93	0.75	0.00	1.00	0.00	0.50	0.00	0.50	0.00
PF ≥ 0.86 & PF ≤ 0.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PF ≥ 0.85 & PF < 0. 86	0.00	1.00	0.00	1.25	0.00	0.75	0.00	0.75
PF ≥ 0.84 & PF < 0. 85	0.00	2.00	0.00	2.50	0.00	1.50	0.00	1.50
PF ≥ 0.83 & PF < 0.84	0.00	2.50	0.00	3.25	0.00	1.75	0.00	1.75
PF ≥ 0.82 & PF < 0. 83	0.00	3.00	0.00	4.00	0.00	2.00	0.00	2.00
PF ≥ 0.81 & PF < 0.82	0.00	4.00	0.00	5.00	0.00	3.00	0.00	2.50
PF ≥ 0.80 & PF < 0. 81	0.00	5.00	0.00	6.00	0.00	4.00	0.00	3.00
PF < 0.80	0.00	6.00	0.00	7.00	0.00	5.00	0.00	3.50

3.2.10.2. The rebate and surcharge against different time periods shall be reflected in the bill separately and shall be treated separately.

3.2.10.3. The rates of rebate and surcharge against different time period and the applicable class of consumers as mentioned in paragraph 3.2.10.1 shall be applicable from the month of April, 2016.

3.2.11 For short term supply, emergency supply and for supply of construction power, there shall be no rebate or surcharge for load factor and power factor.

3.2.12 Delayed payment surcharge shall be applicable as per regulation 4.14 of the Tariff Regulations.

3.2.13 All existing charges relating to meter rent, meter testing, meter replacement, fuse call charges, disconnection and reconnection etc. shall continue.

3.2.14 A consumer opting for pre-paid meter shall not be required to make any security deposit.

3.2.15 All statutory levies like Electricity Duty or any other taxes, duties etc. imposed by the State Govt. / Central Govt. or any other competent authority shall be extra and shall not be a part of the tariff as determined under this tariff order.

3.2.16 All the rates and conditions of tariff are effective from 1st April 2016 and onwards. This rate will continue till further order of the Commission. The rates mentioned in Annexure 3A1, 3A2 and 3A3 to this order exclude the Monthly Variable Cost Adjustment (MVCA), if any, realized / to be realized by WBSEDCL.

3.2.17 Adjustments, if any, for over recovery / under recovery for 2016-17 from the energy recipients shall be made in 15 (fifteen) equal monthly installments

through energy bills raised for the consumption month of November, 2016 and onwards. The MVCA realized by WBSEDCL during the year 2016 – 2017 shall not be considered for adjustment in computation of over recovery / under recovery for the year 2016 – 2017 as mentioned above.

3.2.18 In addition to the tariff determined under this tariff order, WBSEDCL would further be entitled to realize additional sums towards enhanced cost of fuel and power purchase, if any, after the date from which this tariff order takes effect. Thus WBSEDCL shall be entitled to realize MVCA for any subsequent period after the date of effect of this order as per provisions of the Tariff Regulations based on the tariff of this order. While computing MVCA the direction in paragraph 4.2 of the order dated 10.08.2015 shall be complied with.

3.2.19 For any pre-paid and TOD tariff scheme, other charges shall be the charges applicable to the consumers under respective category of non-TOD tariff.

3.2.20 An applicant for short term supplies through pre-paid meter shall have to comply with all necessary formalities for obtaining supply including payment in accordance with the Regulations made by the Commission. The same will be subject to the following conditions:

a) provision of requisite meter security deposit to be kept with licensee,

b) provision of space for installing weather-proof, safe and secure terminal services apparatus to protect sophisticated meter; and

c) availability of prepaid-meter of appropriate capacity.

3.2.21 To avail the rate for street lighting with LED [Rate D (2)], the supply should be metered and all the street lights under the same meter shall be illuminated

with LED. For mixed type of street lights under single meter the rate D(1) shall be applicable.

3.2.22 For a consumer with prepaid meter who has purchased voucher prior to the date of issue of this order, the existing voucher will continue till such voucher is exhausted.

3.2.23 As a part of demand side management to encourage the 33 kV and 132 kV industrial consumers having monthly consumption above 1.0 MU, to reduce their drawal of load in peak period and to shift the load to off-peak period the following rebates shall be allowed:

(a) a rebate equivalent to the difference of the following two will be allowed:

i) Demand charge calculated as per regulation 4.3.6 of the Tariff Regulations; and

ii) Demand charge computed based on the maximum demand of normal period or maximum demand of peak period or contract demand in case of off-peak period or 85% of contract demand whichever is higher, if those industries keep their maximum demand during off-peak period within 130% of contract demand.

(b) Similarly for the above consumers keeping their maximum demand during off-peak period within 130% of contract demand, a rebate equivalent to the difference of the following two will also be allowed.

i) Additional demand charge calculated as per regulation 4.7.2 of Tariff Regulations; and

ii) Demand charge computed based on the methodology for additional demand charge for the normal and peak period will be as per regulation 4.7.2 of Tariff Regulations but there will be no additional demand charge applicable for off-peak period.

(c) Similarly for the above consumers, keeping their maximum demand during off-peak period within 130% of contract demand, a rebate equivalent to the difference of the following two will also be allowed:

i) Load factor rebate computed as per the rates mentioned in paragraphs 3.2.1.1 and 3.2.1.2 following the methodology mentioned in paragraph 3.2.1.4 of this order without considering the additional kWh and KVA drawn during off-peak period over contractual demand; and

ii) Load factor rebate computed as per the rates mentioned in paragraphs 3.2.1.1 and 3.2.1.2 following the methodology mentioned in paragraph 3.2.1.4 of this order.

All the above rebates are effective from the month of April, 2016 subject to the condition that payment is made within the due date.

3.2.24 No other rebate shall be applicable except which are specifically mentioned under this order or in any regulation(s).

3.2.25 Any matter, which has not been explicitly mentioned in this order, shall be guided by regulations 2.9.8 and 2.9.9 of the Tariff Regulations.

3.2.26 A new rate ‘E (C-M)’ for the consumer category of Military Engineering Service (MES) in High and Extra High Voltage has been introduced. The rate ‘E (C-M)’ shall be applicable to the said consumer category alongwith existing applicable rebate and surcharges prospectively from the date

of commencement of first billing month of the respective consumer after the date of issue of this order.

3.3 The Special Secretary to the Government of West Bengal, Department of Power and Non Conventional Energy Sources has issued a letter dated 05.10.2016 communicating the direction under section 108 of the Electricity Act, 2003 regarding the decision of the State Government to give subsidy to the following group of consumers in terms of section 65 of the Electricity Act, 2003.

a) Domestic (rural), Domestic (urban) including lifeline domestic consumers having monthly consumption upto 300 units;

b) Agriculture (Irrigation) consumers having monthly consumption upto 300 units.

It is also stated in the aforesaid letter dated 05.10.2016 that:

i) No subsidy shall be extended to the consumers under other tariff category.

ii) The subsidy amount will be applicable on the difference between the determined tariff rate as per tariff structure for 2016-17 and the present rate as per tariff structure including government subsidy, as applicable for 2015-16.

iii) The subsidy, as mentioned above will be effective from 01.04.2016 on tariff determined for 2016-17.

iv) The State Government has also decided that resultant shortfall in revenue realization of WBSEDCL due to above decision shall be compensated upfront to WBSEDCL in terms of Regulations framed under section 65 of the Electricity Act, 2003.

v) This has concurrence of the Finance Department vide their U.O note dated 21.07.2016.

vi) The Commission may issue appropriate order as per the above directives of the State Government.

3.4 WBSEDCL is directed to comply with the above directives of the State Government. WBSEDCL shall ensure the availability of fund from the State Government before giving subsidy to any proposed group of consumers as per provision of the Act and regulations made thereunder.

WBSEDCL shall clearly indicate in the consumer/consumer's bill (a) the amount payable in terms of the tariff determined by the Commission for the year 2016-2017 (b) the amount of the state government subsidy and (c) the net amount payable as per provisions of the Tariff Regulations.

3.5 WBSEDCL shall present to the Commission a gist of this order in accordance with regulation 2.9.6 of the Tariff Regulation within three working days from the date of receipt of this order for approval of the Commission, and on receipt of the approval, shall publish the approved gist in terms of the aforesaid regulation within four working days from the date of receipt of the approval of the Commission.

LOW AND MEDIUM VOLTAGE CONSUMERS

Sl No	Type of Consumer	Applicable Tariff Scheme						Optional tariff Scheme										
								Optional Tariff Scheme – I					Optional Tariff Scheme - II					
		Consumer category	Name of the Tariff Scheme	Quarterly consumption in KWH		Energy Charge P/kWh	Fixed Charge / Demand Charge * in Rs/KVA/mon	Consumer category	Name of the Tariff Scheme	Quarterly consumption in KWH		Energy Charge P/kWh	Fixed Charge/ Demand Charge * in Rs/KVA/mon	Consumer category	Name of the Tariff Scheme	Quarterly consumption in KWH		Energy Charge P/kWh	Fixed Charge/ Demand Charge * in Rs/KVA/mon
1.	Life Line (Domestic)	Rate A(DM-LL)	Normal	0 to 75		356	5	NOT APPLICABLE						NOT APPLICABLE					
2.	Domestic (Rural)	Rate A(DM-R)	Normal	First	102	526	15	Rate A(DM-R)PP	Prepaid	All units		664	15	NOT APPLICABLE					
				Next	78	586													
				Next	120	673													
				Next	300	723													
				Next	300	732													
				Above	900	899													
3.	Domestic (Urban)	Rate A(DM-U)	Normal	First	102	530	15	Rate A(DM-U)PP	Prepaid	All units		664	15	NOT APPLICABLE					
				Next	78	597													
				Next	120	697													
				Next	300	731													
				Next	300	758													
				Above	900	899													
4.	Commercial (Rural)	Rate A(CM-R)	Normal	First	180	617	30	Rate A(CM-R)T	Normal - TOD	06.00 hrs to 17.00 hrs	All units	774	30	Rate A(Cm-R)tpp	Prepaid-TOD	06.00 hrs to 17.00 hrs	All units	764	30
				Next	120	737													
				Next	150	802				17.00 hrs to 23.00 hrs.	All units	928				17.00 hrs to 23.00 hrs.	All units	926	
				Next	450	845													
				Above	900	894				23.00 hrs to 06.00 hrs.	All units	658				23.00 hrs to 06.00 hrs.	All units	652	
5.	Commercial (Urban)	Rate A(CM-U)	Normal	First	180	619	30	Rate A(Cm-U)T	Normal - TOD	06.00 hrs to 17.00 hrs	All units	774	30	Rate A(Cm-U)tpp	Prepaid - TOD	06.00 hrs to 17.00 hrs	All units	764	30
				Next	120	739													
				Next	150	802				17.00 hrs to 23.00 hrs.	All units	928				17.00 hrs to 23.00 hrs.	All units	926	
				Next	450	845													
				Above	900	894				23.00 hrs to 06.00 hrs.	All units	658				23.00 hrs to 06.00 hrs.	All units	652	

LOW AND MEDIUM VOLTAGE CONSUMERS

Sl No	Type of Consumer	Applicable Tariff Scheme					Optional tariff Scheme										
							Optional Tariff Scheme – I					Optional Tariff Scheme - II					
		Consumer category	Name of the Tariff Scheme	Quarterly consumption in KWH	Energy Charge P/kWh	Fixed Charge / Demand Charge * in Rs/KVA/mon	Consumer category	Name of the Tariff Scheme	Quarterly consumption in KWH	Energy Charge P/kWh	Fixed Charge/ Demand Charge * in Rs/KVA/mon	Consumer category	Name of the Tariff Scheme	Quarterly consumption in KWH	Energy Charge P/kWh		Fixed Charge/ Demand Charge * in Rs/KVA/mon
6.	Public utility/ Specified Institution Public Bodies	Rate A(CM-PU) (MUN)	Normal	On all Units	693	75	Rate A(CM-PU) (MUN) PP	Prepaid	On all Units	683	75	Rate A(Cm-PU) (Mun) ppt	Prepaid - TOD	06.00 hrs. – 17.00 hrs. & 20.00 hrs - 23.00 hrs.	On all units	663	75
														17.00 hrs to 20.00 hrs.	On all units	725	
	In Municipal Area													23.00 hrs to 06.00 hrs	On all units	620	
7.	Public utility/ Specified Institution Public Bodies	Rate A(CM-PU) (NON-MUN)	Normal	On all Units	693	75	Rate A(CM-PU) (NON-MUN) PP	Prepaid	On all Units	683	75	Rate A(Cm-PU) (Non-Mun) ppt	Prepaid - TOD	06.00 hrs. – 17.00 hrs. & 20.00 hrs - 23.00 hrs.	On all units	663	75
														17.00 hrs to 20.00 hrs.	On all units	725	
	In Non Municipal Area													23.00 hrs to 06.00 hrs	On all units	620	
8.	Government School	Rate A(CM-I)	Normal	On all Units	477	25						NOT APPLICABLE					
9.	Cottage Industry / Artisan / Weavers / Small production oriented establishment not run by electricity as motive power	Rate A(CM-II)	Normal	First 300	599	17	Rate A(CM-II) PPT	Prepaid - TOD	06.00 hrs to 17.00 hrs	All units	669	17	NOT APPLICABLE				
				Next 300	742				17.00 hrs to 23.00 hrs.	All units	731						
				above 600	776				23.00 hrs to 06.00 hrs.	All units	626						
10.	Poultry, Duckery, Horticulture, Tissue culture, Floriculture, Herbal – Medicinal – Bio-diesel Plant Farming, Food Processing Unit	Rate A(CM-III)	Normal	On all Units	786	17	Rate A(CM-III) PPT	Prepaid - TOD	06.00 hrs to 17.00 hrs	All units	766	17	NOT APPLICABLE				
									17.00 hrs to 23.00 hrs.	All units	837						
									23.00 hrs to 06.00 hrs.	All units	717						

LOW AND MEDIUM VOLTAGE CONSUMERS

Sl No	Type of Consumer	Applicable Tariff Scheme						Optional tariff Scheme											
								Optional Tariff Scheme – I						Optional Tariff Scheme - II					
		Consumer category	Name of the Tariff Scheme	Monthly consumption in KWH		Energy Charge P/kWh	Fixed Charge/ Demand Charge* in Rs/KVA/mon	Consumer category	Name of the Tariff Scheme	Monthly consumption in KWH		Energy Charge P/kWh	Fixed Charge/ Demand Charge* in Rs/KVA/mon	Consumer category	Name of the Tariff Scheme	Monthly consumption in KWH		Energy Charge P/kWh	Fixed Charge/ Demand Charge* in Rs/KVA/mon
1.	Labour Line (Domestic)	**Rate A(DM-L)**	Normal	All units		616	15	NOT APPLICABLE						NOT APPLICABLE					
2.	Irrigation pumping for Agriculture (Metered)	Rate C(T)	Normal TOD	06.00 hrs to 17.00 hrs	All units	378	20	Rate C(t)ppt	Prepaid - TOD	06.00 hrs to 17.00 hrs	All units	368	20	NOT APPLICABLE					
				17.00 hrs to 23.00 hrs.	All units	748				17.00 hrs to 23.00 hrs.	All units	688							
				23.00 hrs to 06.00 hrs	All units	242				23.00 hrs to 06.00 hrs	All units	279							
3.	Irrigation pumping for Agriculture (Metered supply from mixed HV feeder)	Rate C(A)	Normal	All units		475	30	NOT APPLICABLE						NOT APPLICABLE					

LOW AND MEDIUM VOLTAGE CONSUMERS

Sl No	Type of Consumer	Applicable Tariff Scheme						Optional tariff Scheme									
								Optional Tariff Scheme – I					Optional Tariff Scheme - II				
		Consumer category	Name of the Tariff Scheme	Monthly consumption in KWH		Energy Charge P/kWh	Fixed Charge/ Demand Charge* in Rs/KVA/mon	Consumer category	Name of the Tariff Scheme	Monthly consumption in KWH	Energy Charge P/kWh	Fixed Charge/ Demand Charge* in Rs/KVA/mon	Consumer category	Name of the Tariff Scheme	Monthly consumption in KWH	Energy Charge P/kWh	Fixed Charge/ Demand Charge* in Rs/KVA/mon
5.	Commercial Plantation	Rate A(CM) - CP	Prepaid- TOD	06.00 hrs to 17.00 hrs	All units	720	75	NOT APPLICABLE					NOT APPLICABLE				
				17.00 hrs to 23.00 hrs.	All units	875											
				23.00 hrs to 06.00 hrs	All units	681											
6.	Short Term Irrigation Supply	Rate C(T) - STIS	Prepaid- TOD	06.00 hrs to 17.00 hrs	All units	447	20	NOT APPLICABLE					NOT APPLICABLE				
				17.00 hrs to 23.00 hrs.	All units	825											
				23.00 hrs to 06.00 hrs	All units	279											
7.	Short Term supply for Commercial Plantation	Rate A(CM)-STCP	Prepaid- TOD	06.00 hrs to 17.00 hrs	All units	720	75	NOT APPLICABLE					NOT APPLICABLE				
				17.00 hrs to 23.00 hrs.	All units	923											
				23.00 hrs to 06.00 hrs	All units	679											
8.	Short-term Supply	Rate A(ST)	Prepaid - TOD	06.00 hrs to 17.00 hrs	All units	758	75	NOT APPLICABLE					NOT APPLICABLE				
				17.00 hrs to 23.00 hrs.	All units	826											
				23.00 hrs to 06.00 hrs	All units	715											

LOW AND MEDIUM VOLTAGE CONSUMERS

Sl No	Type of Consumer	Applicable Tariff Scheme						Optional tariff Scheme											
								Optional Tariff Scheme – I						Optional Tariff Scheme - II					
		Consumer category	Name of the Tariff Scheme	Monthly consumption in KWH		Energy Charge P/kWh	Fixed Charge/ Demand Charge* in Rs/KVA/mon	Consumer category	Name of the Tariff Scheme	Monthly consumption in KWH		Energy Charge P/kWh	Fixed Charge/ Demand Charge* in Rs/KVA/mon	Consumer category	Name of the Tariff Scheme	Monthly consumption in KWH		Energy Charge P/kWh	Fixed Charge/ Demand Charge* in Rs/KVA/mon
9.	Public Water Works & Sewerage System	Rate B (II)	Normal	On all Units		712	40	Rate B(II) tpp	Prepaid - TOD	06.00 hrs. – 17.00 hrs. & 20.00 hrs - 23.00 hrs.	All Units	698	40	NOT APPLICABLE					
										17.00 hrs to 20.00 hrs.	All Units	1047							
										23.00 hrs to 06.00 hrs	All Units	482							
10.	Industry (Rural)	Rate B(I-R)	Normal	First	500	604	50	Rate B(I-R) t	Normal - TOD	06.00 hrs to 17.00 hrs	All Units	663	50	NOT APPLICABLE					
				Next	1500	724				17.00 hrs to 23.00 hrs	All Units	798							
				Above	2000	749				23.00 hrs to 06.00 hrs	All Units	495							
11.	Industry (Urban)	Rate B(I-U)	Normal	First	500	620	50	Rate B(I-U) t	Normal - TOD	06.00 hrs to 17.00 hrs	All Units	677	50	NOT APPLICABLE					
				Next	1500	745				17.00 hrs to 23.00 hrs	All Units	814							
				Above	2000	775				23.00 hrs to 06.00 hrs	All Units	505							
12.	Street Lighting	Rate D(1)	Normal	On all Units		664	75	NOT APPLICABLE						NOT APPLICABLE					
13.	Street Lighting with LED	Rate D(2)	Normal	On all Units		480	75	NOT APPLICABLE						NOT APPLICABLE					

LOW AND MEDIUM VOLTAGE CONSUMERS

Sl No	Type of Consumer	Applicable Tariff Scheme						Optional tariff Scheme											
								Optional Tariff Scheme – I						Optional Tariff Scheme - II					
		Consumer category	Name of the Tariff Scheme	Monthly consumption in KWH		Energy Charge P/kWh	Fixed Charge/ Demand Charge* in Rs/KVA/mon	Consumer category	Name of the Tariff Scheme	Monthly consumption in KWH		Energy Charge P/kWh	Fixed Charge/ Demand Charge* in Rs/KVA/mon	Consumer category	Name of the Tariff Scheme	Monthly consumption in KWH		Energy Charge P/kWh	Fixed Charge/ Demand Charge* in Rs/KVA/mon
14.	Private Educational Institutions and Hospitals	Rate D(4)	Normal	On all Units		708	75	Rate D(4) t	Normal - TOD	06.00 hrs to 17.00 hrs & 20.00 hrs to 23.00 hrs	On all Units	688	75	NOT APPLICABLE					
										17.00 hrs to 20.00 hrs	On all Units	751							
										23.00 hrs to 06.00 hrs	On all Units	643							
15.	Emergency Supply	Rate D(5)	Prepaid- TOD	06.00 hrs to 17.00 hrs	On all Units	772	75	NOT APPLICABLE						NOT APPLICABLE					
				17.00 hrs to 23.00 hrs	On all Units	933													
				23.00 hrs to 06.00 hrs	On all Units	732													
16.	Construction Power Supply	Rate D(6)	Prepaid-TOD	06.00 hrs. – 17.00 hrs. & 20 .00 hrs to 23.00 hrs	On all Units	772	75	NOT APPLICABLE						NOT APPLICABLE					
				17.00 hrs to 20.00 hrs.	On all Units	933													
				23.00 hrs to 06.00 hrs	On all Units	732													

LOW AND MEDIUM VOLTAGE CONSUMERS

Sl No	Type of Consumer	Applicable Tariff Scheme						Optional tariff Scheme											
								Optional Tariff Scheme – I						Optional Tariff Scheme - II					
		Consumer category	Name of the Tariff Scheme	Monthly consumption in KWH		Energy Charge P/kWh	Fixed Charge/ Demand Charge* in Rs/KVA/mon	Consumer category	Name of the Tariff Scheme	Monthly consumption in KWH		Energy Charge P/kWh	Fixed Charge/ Demand Charge* in Rs/KVA/mon	Consumer category	Name of the Tariff Scheme	Monthly consumption in KWH		Energy Charge P/kWh	Fixed Charge/ Demand Charge* in Rs/KVA/mon
17.	Bulk Supply at single point to Co-operative Group Housing Society for providing power to its members or person for providing power to its employees in a single premises	Rate D(7)	Normal	All units		698	75	Rate D(7)t	Normal - TOD	06.00 hrs to 17.00 hrs	On all Units	688	75	NOT APPLICABLE					
										17.00 hrs to 23.00 hrs	On all Units	751							
										23.00 hrs to 06.00 hrs	On all Units	632							
18.	Common Services of Industrial Estate	Rate D(8)	Prepaid - TOD	06.00 hrs. – 17.00 hrs. & 20 .00 hrs to 23.00 hrs	On all Units	772	75	NOT APPLICABLE						NOT APPLICABLE					
				17.00 hrs to 20.00 hrs.	On all Units	933													
				23.00 hrs to 06.00 hrs	On all Units	732													
19.	Industrial consumers (50 KVA and above but upto 125 KVA)	Rate B- IDI	Normal	All units		693	255	Rate B- IDIT	Normal TOD	06.00 hrs. – 17.00 hrs.	On all Units	684	255	NOT APPLICABLE					
										17.00 hrs to 23.00 hrs.	On all Units	821							
										23.00 hrs to 06.00 hrs	On all Units	513							
20.	Commercial consumers (50 KVA and above but upto 125 KVA)	Rate B- IDC	Normal	All units		712	255	Rate B- IDCT	Normal TOD	06.00 hrs. – 17.00 hrs.	On all Units	704	255	NOT APPLICABLE					
										17.00 hrs to 23.00 hrs.	On all Units	985							
										23.00 hrs to 06.00 hrs	On all Units	464							
21.	Domestic consumers (50 KVA and above but upto 125 KVA)	Rate D- ID	Normal	All units		684	35	Rate D- IDT	Normal TOD	06.00 hrs. – 17.00 hrs.	On all Units	664	35						
										17.00 hrs to 23.00 hrs.	On all Units	930							
										23.00 hrs to 06.00 hrs	On all Units	439							
22.	Other than Industrial ,Commercial and Domestic consumers (50 KVA and above but upto 125 KVA)	Rate C- ID	Normal	All units		623	255	Rate C- IDT	Normal TOD	06.00 hrs. – 17.00 hrs.	On all Units	582	255	NOT APPLICABLE					
										17.00 hrs to 23.00 hrs.	On all Units	815							
										23.00 hrs to 06.00 hrs	On all Units	384							

Note :- * Fixed Charge will be applicable for the Consumer having Contract Demand below 50 KVA and Demand Charge will be applicable for the consumer having Contract Demand of 50 KVA and above.

HIGH & EXTRA HIGH VOLTAGE CONSUMERS

Sl No	Type of Consumer	Applicable Tariff Scheme							Optional Tariff Scheme							
		Consumer category	Name of the Tariff Scheme	Consumption per month in KWH	Energy Charge P/kWh			Demand Charge (Rs./ KVA/ month)	Consumer category	Name of the Tariff Scheme	Consumption per month in KWH		Energy Charge P/kWh			Demand Charge (Rs./ KVA/ month)
					Summer	Monsoon	Winter						Summer	Monsoon	Winter	
1	Public Utility (11 KV)	Rate E(A)	Normal	All Units	647	645	643	384	Rate E(AT)	Normal - TOD	06.00 hrs-17.00 hrs & 20.00 hrs-23.00 hrs	All Units	628	626	624	384
											17.00 hrs-20.00 hrs	All Units	945	942	939	
											23.00 hrs-06.00 hrs	All Units	494	493	492	
2	Public Utility (33 KV)	Rate F(A)	Normal	All Units	637	635	633	384	Rate F(AT)	Normal - TOD	06.00 hrs-17.00 hrs & 20.00 hrs-23.00 hrs	All Units	615	613	611	384
											17.00 hrs-20.00 hrs	All Units	923	920	917	
											23.00 hrs-06.00 hrs	All Units	483	481	479	
3	Industries (11 KV)	Rate E(B)	Normal	All Units	720	719	718	384	Rate E(BT)	Normal - TOD	06.00 hrs-17.00 hrs	All Units	708	707	706	384
											17.00 hrs-23.00 hrs	All Units	850	849	848	
											23.00 hrs-06.00 hrs	All Units	531	530	529	
4	Industries (33 KV)	Rate F(B)	Normal	All Units	717	715	713	384	Rate F(bt)	Normal - TOD	06.00 hrs-17.00 hrs	All Units	703	701	699	384
											17.00 hrs-23.00 hrs	All Units	844	841	838	
											23.00 hrs-06.00 hrs	All Units	527	526	524	

HIGH & EXTRA HIGH VOLTAGE CONSUMERS

Sl No	Type of Consumer	Applicable Tariff Scheme								Optional Tariff Scheme							
		Consumer category	Name of the Tariff Scheme	Consumption per month in KWH		Energy Charge P/kWh			Demand Charge (Rs./ KVA/ month)	Consumer category	Name of the Tariff Scheme	Consumption per month in KWH		Energy Charge P/kWh			Demand Charge (Rs./ KVA/ month)
						Summer	Monsoon	Winter						Summer	Monsoon	Winter	
5	Industries (132 KV)	Rate H(B)	Normal	All Units		713	711	709	384	Rate H(BT)	Normal - TOD	06.00 hrs-17.00 hrs	All Units	691	689	687	384
												17.00 hrs-23.00 hrs	All Units	829	826	823	
												23.00 hrs-06.00 hrs	All Units	518	516	515	
6	Industries (220KV)	Rate I(BT)	Normal - TOD	06.00 hrs-17.00 hrs	All Units	631	629	627	384	NOT APPLICABLE							
				17.00 hrs-23.00 hrs	All Units	757	754	751									
				23.00 hrs-06.00 hrs	All Units	473	472	471									
7	Industries (400 KV)	Rate J(BT)	Normal - TOD	06.00 hrs-17.00 hrs	All Units	611	609	607	384	NOT APPLICABLE							
				17.00 hrs-23.00 hrs	All Units	733	730	727									
				23.00 hrs-06.00 hrs	All Units	458	457	456									
8	Community Irrigation/ Irrigation	Rate S(GT)	Normal - TOD	06.00 hrs-17.00 hrs	All Units	683	681	682	34	NOT APPLICABLE							
				17.00 hrs-23.00 hrs	All Units	1009	1006	1008									
				23.00 hrs-06.00 hrs	All Units	402	400	401									
9	Commercial Plantation	Rate S(CPT)	Normal - TOD	06.00 hrs-17.00 hrs	All Units	743	741	739	384	NOT APPLICABLE							
				17.00 hrs-23.00 hrs	All Units	1025	1022	1019									
				23.00 hrs-06.00 hrs	All Units	509	508	507									

HIGH & EXTRA HIGH VOLTAGE CONSUMERS

Sl No	Type of Consumer	Applicable Tariff Scheme								Optional Tariff Scheme							
		Consumer category	Name of the Tariff Scheme	Consumption per month in KWH		Energy Charge P/kWh			Demand Charge (Rs./ KVA/ month)	Consumer category	Name of the Tariff Scheme	Consumption per month in KWH		Energy Charge P/kWh			Demand Charge (Rs./ KVA/ month)
						Summer	Monsoon	Winter						Summer	Monsoon	Winter	
10	Short Term Irrigation Supply	Rate S(GT-ST)	Normal - TOD	06.00 hrs-17.00 hrs	All Units	723	719	721	34	NOT APPLICABLE							
				17.00 hrs-23.00 hrs	All Units	1072	1066	1069									
				23.00 hrs-06.00 hrs	All Units	422	420	421									
11	Short Term Supply for Commercial Plantation	Rate S(CPT-ST)	Normal - TOD	06.00 hrs-17.00 hrs	All Units	743	741	739	384	NOT APPLICABLE							
				17.00 hrs-23.00 hrs	All Units	1025	1022	1019									
				23.00 hrs-06.00 hrs	All Units	509	508	507									
12	Commercial (11 KV)	Rate E(C)	Normal	All Units		694	692	690	384	Rate E(CT)	Normal - TOD	06.00 hrs-17.00 hrs	All Units	677	676	675	384
												17.00 hrs-23.00 hrs	All Units	1016	1013	1010	
												23.00 hrs-06.00 hrs	All Units	399	398	397	
13	Commercial (33 KV)	Rate F(C)	Normal	All Units		691	689	687	384	Rate F(CT)	Normal - TOD	06.00 hrs-17.00 hrs	All Units	676	675	674	384
												17.00 hrs-23.00 hrs	All Units	1014	1013	1011	
												23.00 hrs-06.00 hrs	All Units	398	397	396	

HIGH & EXTRA HIGH VOLTAGE CONSUMERS

Sl No	Type of Consumer	Applicable Tariff Scheme							Optional Tariff Scheme							
		Consumer category	Name of the Tariff Scheme	Consumption per month in KWH	Energy Charge P/kWh			Demand Charge (Rs./ KVA/ month)	Consumer category	Name of the Tariff Scheme	Consumption per month in KWH		Energy Charge P/kWh			Demand Charge (Rs./ KVA/ month)
					Summer	Monsoon	Winter						Summer	Monsoon	Winter	
14	Commercial (132 KV)	Rate H(C)	Normal	All Units	688	686	684	384	Rate H(CT)	Normal - TOD	06.00 hrs-17.00 hrs	All Units	668	666	664	384
											17.00 hrs-23.00 hrs	All Units	1003	1001	999	
											23.00 hrs-06.00 hrs	All Units	395	394	393	
15	Domestic	Rate S(D)	Normal	All Units	728	726	724	35	Rate S(DT)	Normal - TOD	06.00 hrs-17.00 hrs	All Units	705	703	701	35
											17.00 hrs-23.00 hrs	All Units	793	791	789	
											23.00 hrs-06.00 hrs	All Units	647	645	644	
16	Public Water Works & Sewerage (11 KV)	Rate E (PW)	Normal	All Units	647	645	643	384	Rate E(PWT)	Normal - TOD	06.00 hrs-17.00 hrs & 20.00 hrs-23.00 hrs	All Units	628	626	624	384
											17.00 hrs-20.00 hrs	All Units	944	941	938	
											23.00 hrs-06.00 hrs	All Units	494	493	492	
17	Public Water Works & Sewerage (33 KV)	Rate F(PW)	Normal	All Units	634	632	630	384	Rate F(PWT)	Normal - TOD	06.00 hrs-17.00 hrs & & 20.00 hrs-23.00 hrs	All Units	614	612	610	384
											17.00 hrs-20.00 hrs	All Units	923	920	917	
											23.00 hrs-06.00 hrs	All Units	482	480	478	
18	Sports Complex & Auditorium run by Govt./ local bodies for cultural affairs	Rate S(C)	Normal	All Units	751	750	748	34	NOT APPLICABLE							

HIGH & EXTRA HIGH VOLTAGE CONSUMERS

Sl No	Type of Consumer	Applicable Tariff Scheme								Optional Tariff Scheme							
		Consumer category	Name of the Tariff Scheme	Consumption per month in KWH		Energy Charge P/kWh			Demand Charge (Rs./ KVA/ month)	Consumer category	Name of the Tariff Scheme	Consumption per month in KWH		Energy Charge P/kWh			Demand Charge (Rs./ KVA/ month)
						Summer	Monsoon	Winter						Summer	Monsoon	Winter	
19	Cold storage or Dairies with Chilling Plant	Rate S(F)	Normal	All Units		613	612	611	360	Rate S(ft)	Normal - TOD	06.00 hrs-17.00 hrs	All Units	596	595	594	360
												17.00 hrs-23.00 hrs	All Units	834	833	831	
												23.00 hrs-06.00 hrs	All Units	393	392	391	
20	Emergency Supply	Rate S(ES)	Normal-TOD	06.00 hrs-17.00 hrs	All Units	752	750	748	384	NOT APPLICABLE							
				17.00 hrs-23.00 hrs	All Units	1057	1054	1051									
				23.00 hrs-06.00 hrs	All Units	499	497	495									
21	Construction Power Supply	Rate S(CON)	Normal-TOD	06.00 hrs-17.00 hrs & 20.00 hrs.-23.00 hrs	All Units	752	750	748	384	NOT APPLICABLE							
				17.00 hrs-20.00 hrs	All Units	1057	1054	1051									
				23.00 hrs-06.00 hrs	All Units	499	497	495									
22	Bulk Supply at single point to Co-operative Group Housing Society for providing power to its members or person for providing power to its employees in a single premises	Rate S(CO)	Normal	All Units		764	762	760	34	Rate S(cot)	Normal - TOD	06.00 hrs-17.00 hrs	All Units	737	735	733	34
												17.00 hrs-23.00 hrs	All Units	812	810	808	
												23.00 hrs-06.00 hrs	All Units	670	668	666	

HIGH & EXTRA HIGH VOLTAGE CONSUMERS

Sl No	Type of Consumer	Applicable Tariff Scheme								Optional Tariff Scheme							
		Consumer category	Name of the Tariff Scheme	Consumption per month in KWH		Energy Charge P/kWh			Demand Charge (Rs./ KVA/ month)	Consumer category	Name of the Tariff Scheme	Consumption per month in KWH		Energy Charge P/kWh			Demand Charge (Rs./ KVA/ month)
						Summer	Monsoon	Winter						Summer	Monsoon	Winter	
23	Common Services of Industrial Estate	Rate E (CT-CS)	Normal - TOD	06.00 hrs-17.00 hrs & 20.00 hrs.-23.00 hrs	All Units	772	770	768	384	NOT APPLICABLE							
				17.00 hrs-20.00 hrs	All Units	1081	1078	1075									
				23.00 hrs-06.00 hrs	All Units	628	627	626									
24	Traction (25 KV)	Rate T (A)	Normal	All Units		715	713	710	360	NOT APPLICABLE							
25	Traction (132 KV)	Rate T (B)	Normal	All Units		715	713	710	360	NOT APPLICABLE							
26	Metro Rail	Rate T (M)	Normal	All Units		693	688	683	105	NOT APPLICABLE							
27	Short-term Supply	Rate S(ST)	Normal - TOD	06.00 hrs-17.00 hrs	All Units	747	745	743	384	NOT APPLICABLE							
				17.00 hrs-23.00 hrs	All Units	1050	1048	1046									
				23.00 hrs-06.00 hrs	All Units	504	502	500									
28	Private Educational Institutions	Rate E (C-EI)	Normal	All Units		789	787	785	384	Rate E (ct-ei)	Normal - TOD	06.00 hrs-17.00 hrs	All Units	777	775	773	384
												17.00 hrs-23.00 hrs	All Units	856	854	852	
												23.00 hrs-06.00 hrs	All Units	707	706	705	
29	MES	Rate E (C-M)	Normal	All Units		631	629	627	192	NOT APPLICABLE							

CHAPTER – 4
DIRECTIONS

4.1 The Commission has given some direction in different paragraphs in Chapter-4 of the order dated 04.03.2015 while determining the fixed cost of WBSEDCL. WBSEDCL shall comply with those directions. The Commission also gave directions under chapter 8 of the tariff order for 2014-2015 and under chapter-4 of the tariff order for the year 2015-16 in respect of WBSEDCL. The Commission also gave directions from time to time for compliance with by WBSEDCL. Some of those directions which will also continue for the year 2016 – 2017 are given below. WBSEDCL shall comply with those directions.

4.2 The Commission has already decided that in future any delay in submission of tariff application by any distribution licensee for any control period beyond the 4th control period or any year as applicable will result in not providing any increase in tariff for equal number of days and thus the under recovery due to such measure will not be allowed to be passed through any tariff mechanism or during truing up in Annual Performance Review (APR) or Fuel & Power Purchase Cost Adjustment (FPPCA). Moreover henceforth any delay in submission in APR or FPPCA application shall not be considered as ground for delay by the licensee for submission of tariff application.

Further, it is also required to be noted that any delay with or without the approval of the Commission in submission of either of the applications of APR or FPPCA of any year (Y) within the target date as specified in the Tariff Regulations of the following year may result into non-inclusion of the impact of APR and/or FPPCA order in the concerned tariff order of the year Y+2. In such case, the impact will be considered in any future year beyond (Y+2) year as applicable without any allowance for carrying cost, if otherwise applicable. Thus, in filing of

application(s) / petition(s), the licensee is required to maintain the relevant time schedule(s) as specified in the Tariff Regulations.

It may be further noted that the arrear amount that is to be recovered in a single or number of installments as will be determined by the Commission for any financial year due to issuance of delayed tariff order as consequence to delayed submission of tariff application by the licensee will not be provided with any carrying cost.

The Commission also observed that during truing up in the APR order of the distribution licensees and in the Fuel Cost Adjustment (FCA) of the generating company, a considerable amount is further recoverable by the licensees and the generating company even after realization of MVCA or MFCA during the year. It appears that the distribution licensees and the generating company have failed to understand the true spirit of introduction of the MVCA and MFCA and they are not considering the eligible cost in computation of their MVCA or MFCA as per the formula specified in the Tariff Regulations properly. The Commission in terms of regulation 5.8.12 of the Tariff Regulations directs WBSEDCL to compute their MVCA taking into consideration the related cost in its true sense keeping in their mind the true spirit of introduction of such monthly adjustment failing which the Commission will think not to allow such adjustment in full in future or not to pass the amount as found recoverable on account of FPPCA during truing up in APR for WBSEDCL.

4.3 As MVCA has already been introduced thus the amount that be claimed in FPPCA at the end of any year is not expected to be higher than the summated value of following factors:

i) impact due to rounding off as per note (f) under the sub- paragraph (e) of paragraph (A) of Schedule - 7B of the Tariff Regulations against the applicable MVCA for the month of February and March of that year,

ii) impact due to non-recovery of any additional fuel cost of March of any year over and above what is recovered on the basis of MVCA as calculated from data of February due to the fact that MVCA calculated on the basis of data of March is become applicable for next financial year only, and

iii) impact due to application of disallowance of cost as per FPPCA formula at FPPCA determination stage.

Thus in such case if recoverable amount under FPPCA of any year is found to be higher than the above referred summated value, then such excess amount will be dealt as per direction already issued by the Commission vide its order in case no. SM-10/14-15 dated 18.07.2014. In this context it is also to be noted that such excess amount represent the amount that would have been collected through MVCA and thus not raising of such bill may result into distorted merit order dispatch in the system. In fact, by virtue of this type of practice there is high possibility of vitiating the environment of merit order dispatch in the whole supply chain in West Bengal power sector and thereby affecting the economic load dispatch in the systems. As a result ultimate sufferer will be the retail consumers of West Bengal. In view of the above, no carrying cost will be allowed by the Commission in case of creation of such excess amount as regulatory asset through FPPCA. Whenever such excess amount is released in number of installments then also it will not be entitled to any carrying cost. However, this direction shall not be construed as an approval of such delayed claim of excess fuel cost through FPPCA instead of MVCA and such matter will be dealt as per

direction already issued by the Commission vide its order in case no. SM-10/14-15 dated 18.07.2014.

4.4 While declaring MVCA for any month WBSEDCL shall follow the following directions:

a) Irrespective of change in MVCA in any month from the previous month, the detailed calculation sheet of MVCA prepared for the purpose of determination of MVCA for that month as per regulation 5.8.9 of the Tariff Regulations shall be submitted to the Commission within seven days of notification of the MVCA or in case of no notification within thirty days after the end of the month under consideration for MVCA. Such calculation sheet shall also specifically mention the received fuel bill and/or power purchase bill which has not been considered or partly considered in the said MVCA in pursuance to note (g) under sub- paragraph (e) of paragraph A of Schedule – 7B of the Tariff Regulations. WBSEDCL shall also upload such calculation sheet in their web-site for each month and shall maintain the same in the website till publication of the worksheet for the next month.

b) In continuation of earlier order in case no: WBERC/A-35/2 dated 19-02-2014 Commission again reiterated that WBSEDCL will publish the notification of change of MVCA in terms of 4th paragraph of regulation 5.8.9 of Tariff Regulations in such daily newspapers which are widely circulated in West Bengal. Any deviation in this regard will be seriously viewed.

4.5 While submitting the Fuel and Power Purchase Cost Adjustment (FPPCA) application for any year WBSEDCL shall give a list of fuel bill or power purchase bill which has not been claimed under MVCA calculation along with the

provisions of the Tariff Regulations under which such claim has not been done. A further reconciliation statement shall be given to establish that WBSEDCL has followed the direction of paragraphs 4.3 and. 4.4 above effectively.

In case of non submission of the above documents/ information the application of APR will not be admitted.

4.6 While computing the renewable and cogeneration purchase obligations, the energy generated from Solar roof-top photovoltaic power plants shall be considered by any distribution licensee both on consumption side and as input energy from renewable sources towards fulfillment of renewable and cogeneration purchase obligations in terms of the Electricity Act, 2003 and the relevant Regulations. The licensee is required to furnish suitable details in this respect.

4.7 WBSEDCL shall submit a report on the following issues:

a) Implementation problem in removing minimum 30 KVA load criterion on eligibility for TOD conversion.

b) Possibility of shifting of load of drinking water pumping station, drainage station and other utility services to non-peak hours through TOD and other Demand Side Management strategy

4.8 While submitting the APR application of any year, the following information is to be provided by WBSEDCL in the notes of Financial statement of Annual Accounts or through Auditor's Certificate, in a manner as described below:

a) All the expenditure or cost element considered under tariff applications are to be provided separately for distribution function and generation function for the regulatory requirement.

b) The penalty, fine and compensation under Electricity Act 2003 shall also be shown separately for distribution function and generation function.

c) Any fine, penalty or compensation in any other statute other than Electricity Act 2003 shall be mentioned separately for distribution function and generation function respectively along with the reference of the statute.

d) The figure of AT & C loss for the years concerned in line with the computation methodology as specified in Form 1.8 of the Tariff Regulations is to be provided. Beside that AT&C loss calculated with arrear recovery done for the period prior to the year for which the account is prepared shall also be shown separately.

e) In the notes of the past Annual Accounts, Repair & Maintenance is shown in three separate heads of distribution & metering, generation and other heads. In the Annual Accounts 'other heads' is to be specified in terms of specific activities.

In case of non submission of the above documents/ information the application of APR will not be admitted.

4.9 While submitting APR application of any year, WBSEDCL shall submit the certificate from the statutory auditor of the annual accounts of the said year for the following parameters:

a) Based on fixed asset register the parameters to be submitted are –

   i) The distribution line length and transmission line (if any which is essential part of distribution system as per section 2(72) of Electricity Act 2003) length in CKM for each level of Voltage related to the assets of WBSEDCL. For the asset which is not owned by the WBSEDCL but maintained by WBSEDCL shall be shown separately.

   ii) Similarly the number of transformers and total installed capacity of transformers in MVA or KVA for each category of transformers for distribution system are to be provided.

b) For the year concerned under the APR the actual number of Consumers, the consumption level in MU and total connected load in KVA for each category of consumers on whom the tariff rate has been issued in the tariff order of the year corresponding to the APR under consideration.

c) The figure of distribution loss and AT&C loss for the year concerned under APR as per form 1.7 and 1.8 of the Tariff Regulations.

d) List of expenditure arisen on account of penalty, fine and compensation due to non-compliance of any statute or statutory order along with the reasons for each such type of penalty, fine and compensation.

e) A statement showing the manpower engaged in different field of activity which is now outsourced partly or fully vis-à-vis the manpower engaged from regular establishment against the respective field of activities.

f) Copies of the audited accounts of all the terminal benefit funds for the year in a complete shape and not by any selective pages.

g) A statement showing monthly deposition in different terminal funds for the concerned year.

h) The detail breakup of number of vehicles that covers all the three shifts of a customer care centre, number of vehicles that covers only two shifts of a customer care centre and number of vehicles that covers only one shift of a customer care centre along with the respective expenditures for each such category. Also give the total number of Customer care centre and number of customer care centers having Urban areas as per definition in regulation 2.1(xxv) of West Bengal Electricity Regulatory Commission (Standards of Performance of Licensees Relating to Consumer Services) Regulations, 2010 (in short "SOP Regulations"). The above information shall be submitted in relation to MCSU services. For hiring vehicle for high voltage services such data shall be submitted separately.

i) A detail breakup showing total expenditure and employee strength against each level of all categories of employees including the whole time directors of the board. If any director or employee discharge any function of other companies also then the allocation of cost among the companies shall be shown separately and distinctly against each level.

j) WBSEDCL along with the application of APR, shall also enclose their compliance report on Renewable Power Purchase Obligation in pursuance to clause 8 of the West Bengal Electricity Regulatory Commission (Cogeneration and Generation of Electricity from Renewable Sources of

Energy) Regulations, 2013 or any of its subsequent amendment or replacement in future.

In case of non submission of the above documents the application of APR will not be admitted.

4.10 In case of expenditure at a level higher than the admitted amount under any uncontrollable factor in the tariff order on account of fixed charges, while submitting APR application for the year, WBSEDCL shall justify such higher expenditure in detail with supporting document and evidence on the basis of which the Commission will take decision during truing up exercise and it may be noted that without sufficient justification the excess expenditure may not be admitted in the APR fully or partly. Similarly for controllable factors, wherever applicable as per Tariff Regulations, for the same reasons supporting documents and evidence are to be submitted to justify their claim. While truing up any uncontrollable factor on account of fixed charges, the actual business volume parameter and actual inflation rate to which such uncontrollable item is sensitive will be considered in the same manner and principle as determined under the tariff order issued on 04.03.2015 subject to the limitation as per the Tariff Regulations. However, wherever applicable as per this tariff order the ratio of expenses increase in percentage (%) of any item and the sensitivity parameter increase will remain the same as that of the tariff order dated 04.03.2015. This is applicable for APR of every year under the fourth control period.

4.11 While submitting application of APR for any year, if such application shows any net claim for that year after considering the concerned FPPCA, then in such case WBSEDCL shall suggest in specific terms the ensuing year(s) in which they intend to recover such claim and by what amount. WBSEDCL shall also show the

consequential impact of such recovery in the expected average cost of supply in those ensuing years after considering the total revenue recoverable through tariff. The total revenue recoverable through tariff means the summated amount of the Net Aggregate Revenue Requirement plus all other amount on account of any release of regulatory asset, FPPCA and APR of its own and FCA of WBPDCL as applicable for any year which is being already decided by the Commission in earlier orders. They shall also mention the carrying cost, if necessary, where it is applicable in terms of the Tariff Regulations and different orders and direction of the Commission in this respect. This consequential impact on tariff shall also be provided in the gist of the APR application.

In case of non submission of the above information the application of APR will not be admitted.

4.12 The fund released for terminal benefit fund in the ensuing year of 4th control period are as follows:

Rs. in lakh

Sl No	Particulars	2014-15	2015-16	2016-17
1	Interest on bonds for Terminal Benefits to employees	13005.00	13005.00	13005.00
2	Release of Regulatory Asset for terminal benefit as mentioned in paragraph 6.2(v) of this MYT order	4703.68	36000.00	31000.00
3	Terminal benefits as per MYT order of 4th control period	34785.50	37629.45	43072.49
	Total	52494.18	86634.45	87077.49

In order to ensure that in future actuarial valuation of terminal benefit fund can be kept in control in a better way by avoiding carrying cost of such liability in future the following is to be adhered to:

a) WBSEDCL shall ensure that henceforth at least one-twelfth of the amount on account of terminal benefit as shown in serial no. 1 of the table above, as a part of employee cost admitted in the tariff order, is to be deposited in different terminal benefit funds every month as a first charge item. This process will also continue beyond 2016 – 2017 till issuance of next tariff order.

b) It is to be noted that regulatory release of terminal benefit amount under Sl. No. 2 of above table being a component of arrear amount recoverable through number of installments, such amount is to be deposited in the terminal benefit funds prospectively. The amount deposited in terminal benefit fund from such arrear recovery in each future year shall also be commensurating with the arrear recovered in that particular year on monthly basis.

c) WBSEDCL shall ensure that henceforth the amount that is statutorily required to be deposited in a month in different fund on account of terminal benefit as shown in sl. No. 3 of the table above, as a part of employee cost admitted in the tariff order, is to be deposited in different terminal benefit funds every month as a first charge item. This process will also continue beyond 2016 – 2017 till issuance of next tariff order.

d) On the head of terminal benefit fund, if there is shortage in the deposit amount in the terminal benefit fund admitted in employee cost through this order, the balance amount of contribution to terminal benefit fund is required to be deposited as first charge item over and above what had already been deposited for the year 2016 – 2017, from the effective date of recovery of the recoverable amount against this order from the very first day. So, it is directed

that the balance amount of contribution as discussed above to terminal benefit fund for the year 2016 – 2017, i.e., the difference between the amount of contribution to terminal benefit funds as allowed in the order as a part of employee cost and that has already been deposited in the fund, is to be deposited in the respective different terminal benefit funds. Such balance amount is to be deposited in different terminal benefit funds in not more than 12 monthly equal installments from the date on which the recovery through tariff against this order will start.

e) While submitting application of APR for 2016-17, WBSEDCL shall show through audited accounts of different terminal benefit funds that the contribution to the different terminal benefit funds during the concerned year as a part of employee cost is duly deposited in the terminal benefit funds.

In case of non-deposition of amount admitted for terminal benefit fund as provided in (a) to (e) above in the respective fund as directed above, Commission may withhold or deduct same amount equivalent to amount of non-deposition.

4.13 In the tariff order dated 04.03.2015 it was considered that all type of compensation (as shown under note no 27 of the Annual Accounts 2012-13) is the part of the other administrative & general expenses except Compensation to consumer. Similarly loss on obsolete stores etc has also been considered as expenditure under Other Administrative & General Expenses. Separately no such claim should be lodged by WBSEDCL and compensation to consumers can never be claimed.

4.14 In past, number of distribution projects (such as APDRP, R-APDRP Part A) has been undertaken where distribution loss reduction was targeted. Commission directs that WBSEDCL shall prepare a report on such projects about achievement and the learning from such project after post completion study of the project. WBSEDCL has to also mention clearly the steps they are undertaking from the experience of the earlier projects in their new but similar types of projects such as R-APDRP part B project so that distribution loss reduction target as envisaged in the project can be achieved. Such report shall be submitted to the Commission alongwith the APR application for 2016 – 2017 and on the basis of that Commission will provide directions that in case of failure to achieve the distribution loss target as envisaged in the project what would be the penal measures.

4.15 The Commission is statutorily duty bound to promote generation of electricity from following sources of energy:

i) Co-generation of electricity from renewable sources.

ii) Co-generation of electricity from fossil fuel sources.

iii) Co-generation of electricity from hybrid sources of fossil fuel / conventional sources and renewable sources.

iv) Electricity generation from renewable sources.

In order to promote above mentioned type of generation of electricity by applying regulations 8.3 and 8.4 of the Tariff Regulations and regulations 19.1 and 19.2 of the West Bengal Electricity Regulatory Commission (Cogeneration and Generation of Electricity from Renewable Sources of Energy) Regulations, 2013, the Commission has already decided that from the APR of the ensuing year 2016 – 2017 a deduction of 5% from Return on Equity will be done if WBSEDCL fails

to comply with the Renewable Purchase Obligation as per West Bengal Electricity Regulatory Commission (Cogeneration and Generation of Electricity from Renewable Sources of Energy) Regulations, 2013 or any of its subsequent amendment. In this context, the Commission directs that WBSEDCL shall advertise on important national media inviting the interested parties of supplying renewable and cogeneration electricity on every four months for next two years instead of one time in a year in pursuance to the regulation 3.5 of the said Regulations.

4.16 While submitting application of APR, WBSEDCL shall also submit a detailed calculation showing that revenue collected against the supply of electricity to consumers at a rate below the rate determined in this tariff order in pursuance to the application of paragraph 7.2.27 of the order dated 04.03.2015 and concerned clauses of Tariff Regulations satisfying the condition that the consumers covered by application of such paragraph through the notification dated 23.09.2014 published by WBSEDCL have been supplied electricity at a price not below the cost of supply to them and revenue recovered from them is commensurating with such price as well as their consumption. WBSEDCL has also to establish that no loss on this head has been passed to other consumers through the ARR determination process in the APR.

4.17 The cost of meter reading and billing paid to New Town shall be on transaction basis. Accordingly, the agreement between WBSEDCL and its franchise shall be amended.

4.18 In order to reduce the impact in FPPCA henceforth while applying the formula of MVCA the component of adjustment Δ_{Adj} shall be duly applied by finding out the deviation in recovery of variable cost from sale side computation for the period concerned in pursuance to note (a) under paragraph A of the Schedule – 7B of the Tariff Regulations.

4.19 WBSEDCL is directed to furnish the month wise statement of consumption in (MU) and maximum demand in (KVA) during different time period of normal, peak and off-peak period of all 33 KV and 132 KV industrial consumers during the year 2014 – 2015 and 2015 – 2016 along with their APR application for 2015 – 2016 for study of change in consumption pattern of industrial consumers after implementation of the new rebate as mentioned in paragraph 3.2.25 of the tariff order for 2015 – 2016.

4.20 WBSEDCL is directed to take initiatives for energy conservation to flatten the load curve in the following ways:

i) by retrofitting conventional light with LED lamp, energy efficiency appliances like, fans, A/C, etc.; and

ii) by arranging load management awareness programme for the consumers.

WBSEDCL shall also take initiative in development of roof top solar PV and other renewable sources of energy.

4.21 WBSEDCL was already directed to submit their plan for reduction of Aggregate Technical and Commercial (AT&C) losses through implementation of HVDS. WBSEDCL shall submit the status of survey work on HVDS within 3 (three) months from the date of this order.

4.22 WBSEDCL was already directed to segregate feeders based on rural, urban and cities with energy audit. WBSEDCL is now directed to submit the status report on segregation of feeders within 3 (three) months from the date of this order. WBSEDCL is also directed to submit energy audit report by 31st March, 2017.

4.23 Henceforth, in their APR application for the year 2016 – 2017 and onwards, WBSEDCL shall submit the technical and commercial losses separately.

4.24 WBSEDCL shall submit a roadmap setting areas having high commercial loss, actions contemplated to be taken for reduction of theft, improvement of billing and collection efficiency (installation of smart meters, prepaid meters, pole mounted meters, etc.) and spot collection of payment within 3 (three) months from the date of this order.

4.25 WBSEDCL shall also submit the roadmap to achieve the following:

i) Reduction of cost of distribution (including loss and sale of energy) nearer Re. 1.00 per unit.

ii) Reduction of technical loss to the following limits:

- For Cities – 4.00%
- For Urban - 5.00%
- For Rural Area - 8.00%

iii) Reduction of Commercial Loss below 2.00%.

iv) Time line to achieve the commercial loss reduction target.

4.26 The Commission earlier directed WBSEDCL to submit a detailed scheme preferably in the form of Detailed Project Report (DPR) for implementing various measures as enumerated below:

i) Introducing Pre-paid Smart Metering keeping a provision of switching over to smart Grid with smart Meters in future.

ii) Effecting Energy Audit and Technical Audit in the company activities.

iii) Application of AB Cables with HVDS while giving connections particularly in theft prone areas.

The prime objective of the Commission is to reduce the AT&C loss of the distribution licenses to a desirable extent. This loss reduction is to be effected in phases with firm commitments and to be achieved within a period of three years from now onwards.

4.27 WBSEDCL shall further submit matrix wise consumption and AT&C losses for each segment as below to bring out separately the technical and commercial loss required for achieving the target AT&C loss as indicated at paragraphs 4.26 (ii) above.

Voltage level	Rural		Urban		City	
	consumption (MU)	AT&C loss (%)	consumption (MU)	AT&C loss (%)	consumption (MU)	AT&C loss (%)
132 KV and above						
33 KV						
11 KV						
L&MV						

4.28 While submitting application of APR for the year 2016 – 2017, WBSEDCL shall have to submit the following through affidavit:

a) That no expenditure has been claimed by WBSEDCL through the APR petition on employee or infrastructure or any other support or O&M activity pertaining to any other business of WBSEDCL not in relation to their licensed business.

b) The list of cases related to Tariff, Annual Performance Review (APR) and Fuel and Power Purchase Cost Adjustment (FPPCA) filed or applied for filing in the Court of Law but the notices have not yet been served to the Commission.

4.29 The Commission intends to introduce Advance Metering Infrastructure (AMI) system which is a primary constituent of smart grid. AMI system, being an useful tool in improving the performance of the DISCOMs, may be introduced along with Optical Fibre Cable (OFC) based communication system. As this kind of work requires substantial capital and moreover its efficacy has not yet been proven, a pilot project may be considered as an initial step, the value of which may be contained within Rs. 5000.00 lakh.

4.30 WBSEDCL shall take initiative so that the power factor rebate and surcharge can be introduced for the L.T. industrial consumer having connected load of 30 KVA and above in the tariff order for the firth control period. WBSEDCL shall accordingly submit their application for the fifth control period commencing from the financial year 2017 – 2018.

4.31 Failure in compliance of any of the above directions within 31st March, 2017 will attract a substantial penalty to be decided and adjusted in their ROE during Annual Performance Review (APR).

Sd/-
(AMITAVA BISWAS)
MEMBER

Sd/-
(R. N. SEN)
CHAIRPERSON

DATE: 28.10.2016

COMMISSION'S ORDER

ON

TRUE- UP FOR THE FY 2015-16, ANNUAL (MID-YEAR) PERFORMANCE REVIEW FOR THE FY 2016-17, AGGREGATE REVENUE REQUIREMENT OF UHBVNL AND DHBVNL AND DISTRIBUTION & RETAIL SUPPLY TARIFF FOR THE FY 2017-18

CASE No's: HERC/PRO-39 of 2016 & HERC/PRO-40 of 2016

11th July, 2017

HARYANA ELECTRICITY REGULATORY COMMISSION

BAYS 33-36, SECTOR - 4, PANCHKULA - 134 112, HARYANA

www.herc.nic.in

IN THE MATTER OF

Petition for True-up of the ARR for the FY 2015-16, Annual (Mid-Year) Performance Review for the FY 2016-17 and determination of ARR and Distribution and Retail supply tariff for the FY 2017-18 for Uttar Haryana Bijli Vitaran Nigam Limited (UHBVNL) and Dakshin Haryana Bijli Vitaran Nigam Limited (DHBVNL), under the provisions of the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012, read with section 45, 46, 47, 61, 62, 64 & 86 of the Electricity Act, 2003.

QUORUM

Shri Jagjeet Singh,	**Chairman**
Shri M.S. Puri,	**Member**
Shri Debashish Majumdar,	**Member**

ORDER

The Haryana Electricity Regulatory Commission (hereinafter referred to as 'the Commission' or HERC), in exercise of the powers vested in it under section 62 of the Electricity Act, 2003 read with section 11 of the Haryana Electricity Reforms Act, 1997 and all other enabling provisions in this behalf, passes this Order determining the Truing-up of the ARR for the FY 2015-16, Annual (Mid-year) Performance Review for the FY 2016-17, Aggregate Revenue Requirements and distribution and retail supply tariff of UHBVNL and DHBVNL for their Distribution and Retail Supply Business under MYT framework for the FY 2017-18 in accordance with the provisions of Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012 (hereinafter referred to as MYT Regulations,2012. The Commission, while passing this Order, has considered the Petition(s) filed by UHBVNL and DHBVNL along with subsequent filings/additional data provided by them including filings made by the two Utilities in response to the various queries of the Commission, objections received from various organisations and individuals and the reply / comments furnished by UHBVNL/DHBVNL thereto to as well as the suggestions of the SAC Members in the meeting held on 20.03.2017. All other relevant facts, data and information available on record of the Commission have been perused before passing this Order.

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HERC

Chapter 1

INTRODUCTION

1.1 Background

The Commission, on 5th December 2012, had notified the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012. Regulation 4.2 of the MYT Regulations, 2012 provides that **"the Commission shall adopt Multi Year Tariff (MYT) framework for determination of ARR / tariff for each year of the Control Period from FY 2014-15. However, there shall be annual determination of ARR/tariff for the utilities for FY 2013-14 for their respective businesses as per these regulations."** Accordingly, the first Order of the Commission under the provisions of the MYT Regulations was issued on 29th May 2014. In the said Order, the Commission had determined ARR of UHBVNL and DHBVNL for the FY 2014-15, FY 2015-16 and FY 2016-17 and distribution and retail supply tariff for the FY 2014-15.

The Commission by its Order dated 07.11.2016 has amended the MYT Regulations, 2012 by way of Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012 (1st Amendment) Regulations, 2016. Accordingly, following amendments were made in the Regulation no. 3.16:

> *"The definition and interpretation under Regulation 3 (3.16) shall be replaced by the following paragraph, namely:-*
>
> > ***"Control Period"*** *means a multi-year tariff period fixed by the Commission from time to time. The first control period shall be from 1st April 2014 to 31st March 2018.*
> >
> > *Provided that where certain norms / benchmarks are required to be computed using 'baseline values' and the 'base year' has been defined as the financial year immediately preceding the first year of the control period. In all such cases the 'base year, for projecting normative values for annual determination of the ARR/Tariff petition(s) for the FY 2017-18*

shall be the FY 2015-16 based on the respective audited accounts of the licensees and the generating company.

Provided that in the case of HVPNL/Discoms the O&M expenses for the FY 2017-18 shall be based on the audited accounts for the FY 2015-16 subject to prudence check.

Provided further that in the case of HPGCL, the per MW O&M expenses, shall be worked out by the Commission based on the audited accounts for the FY 2015-16 subject to prudence check. "

Accordingly, in the present Order, the Commission has carried out True-up for the FY 2015-16 ARR. The approved trued-up amount has been included in the ARR for the FY 2017-18. Additionally, the Commission, in accordance with the MYT Regulations, 2012, has also carried out Annual (Mid–Year) Performance Review of the Distribution and Retail Supply businesses of the two Distribution Licensees i.e. Uttar Haryana Bijli Vitran Nigam (UHBVNL) and Dakshin Haryana Bijli Vitran Nigam (DHBVNL).

1.2 Petitions(s) filed by UHBVNL and DHBVNL (Discoms)

The MYT Regulations, 2012, as amended by the Commission vide its Order dated 07.11.2016, provides that the first control period for determination of ARR/Tariff under MYT framework shall be from 1st April 2014 to 31st March 2018. The regulations 4.4 to 4.8 of the MYT Regulations, 2012 are reproduced below:-

4.4 Tariff during the control period: The Commission shall determine the ARR for each year of the control period and tariff for the first year of the control period separately for Generation Company (ies), transmission licensee(s) and distribution licensee(s).

4.5 The tariff applicable to each business in each of the remaining years of the control period shall be notified by the Commission through a separate order after taking into consideration the following:-

a) Mid-year performance review;
b) Specified performance targets;
c) True-up of uncontrollable items as defined in regulation 8.3.

4.6 There will be no True-up of the controllable items except on account of Force Majeure events or on account of variations attributable to

uncontrollable items. The variations in the controllable items, as defined in regulation 8.3, over and above the norms specified will be governed by incentive and penalty framework specified in these regulations.

4.7 The tariff determined by the Commission and the directions given in the MYT order shall be the quid pro quo and mutually inclusive. The tariff determined shall, within the time period specified in the order, be subject to the compliance of the directions by the generating company and the licensees to the satisfaction of the Commission. Non-compliance of the directions shall lead to such amendment, revocation, variations and alterations in the tariff, as may be ordered by the Commission. Further non-compliance of directions given in the tariff order may also lead to invocation of the provisions of section 142 of the Act.

4.8 The tariff determined by the Commission shall continue to operate till it is modified or revised by the Commission.

The regulation 71.9 of the MYT Regulations, 2012 provides as under:-

71.9 Filing for Mid-year performance review, True-up and determination of tariff for ensuing year

The generating company and the licensees shall file their application for mid-year performance review of the current year, True-up of the previous year and tariff for the ensuing year along with requisite fee by 30th November of each year of the control period as per the details mentioned in the regulation 11 & 13 for the Commission's review, True-up of uncontrollable / controllable items in accordance with regulation 8.3 and approval of tariff for the ensuing year.

In compliance to the above DHBVNL and UHBVNL had filed the Petitions no. PRO 39 of 2016 and PRO-40 of 2016 for APR of 2016-17, ARR for FY 2017-18 and True-up of ARR for FY 2015-16 on 30.11.2016.

Further, as per past practice, the Commission has considered it appropriate to issue a single Order in respect of the present Petitions of UHBVNL and DHBVNL under consideration of the Commission. Accordingly, in the present Order, the common

issues of the two Discoms have been dealt with together while the issues specific to UHBVNL and DHBVNL has been dealt with separately.

In the instant Order the Commission has carried out True-up of ARR(s) for the FY 2015-16, Annual (Mid-Year) review for the FY 2016-17 and has determined the ARR(s) for the FY 2017-18 of UHBVNL and DHBVNL for their Distribution and Retail Supply Business.

HERC

Chapter 2

PROCEDURAL ASPECTS OF THE ARR PETITION(S)

2.1 ARR Petitions filed by UHBVNL & DHBVNL

UHBVNL filed its True-up/ APR/ARR/ Petition (HERC/PRO-40 of 2016) for the FY 2017-18 for its Distribution and Retail Supply business in the Commission vide Memo No. Ch- 05/GM/RA/N/F-25/Vol.-64 dated 30.11.2016. However, the same was revised by way of supplementary submission filed by UHBVNL vide memo no. Ch-30/GM/RA/N/F-25/Vol.-64 dated 06.01.2017.

DHBVNL filed its True-up/APR/ARR/ Petition (HERC/PRO-39 of 2016) for the FY 2017-18 for its Distribution and Retail Supply business in the Commission vide Memo No. Ch-10/SE/RA-560 dated 30.11.2016. However, the same was revised by supplementary submission filed by DHBVNL vide memo no. Ch- 18/SE/RA.-560 dated 09.01.2017.

The Petitions filed by UHBVNL and DHBVNL were scrutinised and preliminary observations of the Commission were communicated to the licensees vide Memo No. 8838/ HERC/ Tariff dated 31.01.2017 (UHBVNL) and Memo No. 8821/ HERC/ Tariff dated 27.01.2017 (DHBVNL). Replies in respect of various observations and deficiencies in the ARR petitions communicated to the Discoms were furnished by UHBVNL vide memo No. Ch-33/GM/RA/N/F-25/Vol-65 dated 08.03.2017 and vide memo no. Ch-38/SE/RA-560 dated 06.03.2017 by DHBVNL. The Commission reviewed the replies submitted by the Discoms and sought further information including non-compliance of some of the observations / directives of the Commission.

2.2 Summary of the Petitions filed by the Discoms

2.2.1 ARR of UHBVNL

The Petitioner has prayed to continue with the current levels of tariff and FSA based on which the total ARR gap for the FY 2017-18 has been projected at Rs. 1033.33 Crore to be met through the Operational Funding Requirement (OFR) as available under the UDAY Scheme.

a) Capital Expenditure (Capex)

The Petitioner has submitted that the Commission had approved its proposal in respect of Capex Plan of Rs.1055.97 Crore for the FY 2016-17. The capital expenditure

projected by UHBVNL for the FY 2017-18 is Rs. 753.80 Crore. UHBVNL has further submitted that the funding of capital expenditure in the FY 2016-17 is being arranged by debt from REC, PFC and available equity support as well consumers contribution.

b) Assessment of Energy Sales for the FY 2016-17 and the FY 2017-18

UHBVNL has submitted that the consumer category wise sales for the FY 2016-17 and FY 2017-18 have been arrived by based on CAGR for the previous year's data for connected load, sales and resulting consumer category wise consumption per KW. Agricultural consumption for the FY 2016-17 and FY 2017-18 has been calculated by assuming a growth rate of 5% in sales over FY 2015-16, in line with the methodology adopted by the Commission. Accordingly, energy sales for the FY 2016-17 and the FY 2017-18 have been projected as 14,242.74 MUs and 15,088.13 MUs respectively.

c) Energy Balance and Power Purchase for Haryana for FY 2016-17 and FY 2017-18

The Petitioner has submitted that Month Wise Energy availability for the FY 2016-17 and 2017-18 at the state periphery in MUs has been projected based on the allocated share to Haryana of Central Generating Stations, State Generation and Independent Power Producers and other Stations. The energy availability in Haryana is calculated based on the average PLF of FY 2015-16, FY 2014-15 and FY 2013-14. Share capacity of Haryana from Central Generating Station IPP. The energy availability to UHBVN is calculated by multiplying the total availability with the ratio of drawal of UHBVN and DHBVN.

The Monthly energy sale is determined by distributing the yearly energy sales in the percentage of month wise consumption of FY 2015-16. The energy sales hereby projected has been grossed up with the losses approved under UDAY scheme to reach at the normative energy required at the Discom periphery and then by the intrastate transmission losses to arrive at the normative energy required at the State Periphery.

The Normative energy required at the State is then assumed to be met through energy available from Must Run Plant i.e. plants which cannot be backed down like Hydro Power Plants, Solar Power Plant and Biomass. The remaining demand is met through thermal Power Plant i.e. HPGCL, IPPs and NTPC as per Merit order dispatch based upon the Variable charges as per the actual bills of FY 2015-16.

The Impact of Interstate losses on the Inter State Generating station has already been taken while calculating the availability at the state periphery.

The actual Variable Charges of FY 2015-16 has been escalated at an average rate of 5% per year multiplied with total estimated energy drawn from various generators to arrive at the total variable cost of power generation for FY 2016-17, however for the FY 2017-18 the variable cost has been kept at same levels as that of FY 2016-17. The same has been projected in view of Licensee's attempt for better power purchase planning and load forecasting etc.

Similarly, the fixed charges paid to the generators in FY 2015-16 are escalated at an average rate of 5% to arrive at the fixed charges to be paid for FY 2016-17 and FY 2017-18.

Further, the Hon'ble APTEL in its Judgment dated 7th April, 2016 has allowed certain generators like Adani Power, GMR Kamalganga, Sasan Power Ltd and CGPL recoveries on account of force majeure / change in law / date of COD etc. The Licensee has already submitted the issues in detail vide various submissions namely vide Memo No. Ch-25/GM/RA/N/F-25/Vol-62, Ch-37/GM/RA/N/F-54/Vol-XI, Memo No. CH-55/SE/RA/N/F-24/VOL-XI (A) and Memo No.Ch-66/GM/RA/N/F-54/Vol-XI (A) dated 25.05.2016, 12.07.2016 and 16.09.2016 and 24.11.2016 respectively.

It is submitted that out of the above liabilities of Rs. 1534.76 Cr the Licensee has already made payment of Rs. 368.44 Cr up to 26.10.2016, therefore the liabilities has been included in the power purchase cost of FY 2016-17 and FY 2017-18. Further, the monthly impact based on the bills on account of above works out to Rs. 31.80 Cr, accordingly the licensee has worked out the additional power purchase cost on pro-rata basis for 5 months of FY 2016-17 and full year for FY 2017-18.

Accordingly, the additional power purchase cost due to impact of Hon'ble APTEL's Judgment works out to Rs. 450.55 Cr and Rs. 457.46 Cr respectively which has been added in the overall projected power purchase cost.

Further, the Nigam has projected the Interstate and Intrastate Transmission charges for FY 2016-17 and FY 2017-18 by escalating the actual Interstate and Intrastate Transmission charges paid by the Nigam during FY 2015-16 by 3.32%, which is rate of escalation considered by Hon'ble CERC for escalating the transmission charges.

The total power purchase cost from external and state sources for UHBVN including impact of APTEL Judgment has been assessed at Rs. 10484.20 Crores for FY 2016-17 and Rs. 10,959.56 Crores for 2017-18.

Energy balance for Haryana for FY 2016-17 and FY 2017-18 as proposed by UHBVNL is as under:-

Energy Balance for Haryana for the FY 2016-17 and FY 2017-18

Energy Balance	Units	FY 2016-17	FY 2017-18
Power Purchase at State Periphery	MU	22,750.83	23,253.17
Energy Sales to the Consumers	MU	14,242.74	15,088.13
Distribution loss	%age	25.19%	20.85%
Energy Sales at Discom Periphery	MU	19,039.04	19,062.34
Intra- State Transmission Loss	%age	2.46%	2.46%
Energy Sales at State Periphery	MU	19,519.21	19,543.10
Surplus	MU	3,231.62	3,710.07

The Nigam has assumed that the surplus power available will be sold entirely as 'inter-state sales' throughout FY 2016-17 and FY 2017-18 at 80% of average variable power purchase cost.

d) Transmission Losses

It has been submitted that the inter-state transmission losses and intra-state transmission losses have been considered as 3.82% and 2.46% respectively as approved by the Commission.

e) Distribution Losses

The Petitioner for the FY 2016-17 and 2017-18, the distribution losses of UHBVN have been considered as 25.19% and 20.85% respectively as approved under the UDAY scheme, notified by the Government of Haryana.

f) Interest and Finance Charges

UHBVNL has estimated interest and finance charges (inclusive of repayment of working capital loans and interest on consumer security deposit), net of capitalisation, at Rs.1305.42 Crore and Rs. 1136.94 Crore for the FY 2016-17 and the FY 2017-18 respectively.

g) Depreciation

For the FY 2016-17 and the FY 2017-18, UHBVNL has estimated depreciation charges based on the estimated additions in GFA as per its Capital Investment plan for the FY 2016-17. The transfer of total Capex to the Fixed Asset has been considered as

70%. UHBVNL has considered the Capital Expenditure of Rs 1055.97 Cr as approved by the Commission for FY 2016-17 and for FY 2017-18 the Nigam proposes a Capital expenditure of Rs 753.80 Cr.

For the purpose of projecting depreciation charges for the FY 2016-17 and 2017-18 the Petitioner has considered the category-wise actual depreciation rates (as a percentage of opening balance of asset-class-wise GFA for that year). Accordingly, UHBVNL has claimed Rs. 295.24 Crore and Rs. 339.37 Crore in FY 2016-17 and FY 2017-18 respectively towards depreciation charges.

h) Operation and Maintenance Expenses (O&M)

The Petitioner has submitted that they have calculated the various components of O&M expenses as per the methodology, including the indexation mechanism, as provided in the MYT Regulations, 2012. Accordingly, the Petitioner has claimed Rs. 1246.45 Crore and Rs. 1288.05 Crore (inclusive of Rs. 400 Crore towards terminal benefits in each year) towards O&M expenses for the FY 2016-17 and the FY 2017-18 respectively. The same is inclusive of employee cost of Rs. 651.61 Crore and Rs. 676.35 Crore for the FY 2016-17 and FY 2017-18, respectively. Employee cost for the FY 2016-17 has been calculating with an additional increase of 20% on account of 7th pay commission recommendations. The Petitioner has considered the indexation factor as 3.80% based on WPI/CPI indices for the FY 2015-16 and the FY 2016-17 (upto Sep. 16).

i) Non-Tariff Income

The petitioner has projects the non-tariff income, in line with the actual figures for FY 2015-16. The actual figure of Non Tariff Income of FY 2015-16 is Rs 183 Cr. Non-Tariff Income such as discount for timely payment of Energy Charge and Meter rental services is escalated at the rate equal to rate of increase in sales and No of Consumers. The Petitioner has requested to the Commission to approve non-tariff income of Rs. 190.15 Cr. for the FY 2016-17 and 197.25 Cr.for the FY 2017-18.

j) Return on Equity (RoE)

UHBVNL, in its present Petition, has prayed that the Commission may allow RoE of Rs. 245.38 Crore and Rs. 268.19 Crore, for the FY 2016-17 and FY 2017-18, respectively.

k) Bad and Doubtful Debts

UHBVNL has submitted that as per Regulation 64 of the MYT Regulation, 2012 it has estimated a provision for bad and doubtful debts of Rs 42.39 Cr and Rs 44.82 Cr for FY 2016-17 and FY 2017-18 respectively.

l) True–up of RE Subsidy

In addition to the above, the Petitioner has sought True-up of RE Subsidy based on the actual AP sales data (8905.20 MU i.e. 3936.09 MUs for UHBVN and 4969.10 MUs for DHBVN) based on the Commission's methodology of applying 16% losses on AP Feeder data. The Commission had allowed per unit subsidy of Rs. 7.23/Unit (Rs. 6196.91 Crore divided by 8570.23 MU). Accordingly, the True-up amount for RE Subsidy for both the Discoms (UHBVNL and DHBVNL) has been worked out as Rs. 241.83 Cr. (Rs. 145.10 Crore -UHBVNL and Rs. 96.73 Crore -DHBVNL) for the FY 2015-16.

m) Revenue Estimation

UHBVNL has submitted that the revenue that is expected to accrue from sale of energy has been calculated by them based on the average-billing rate of the FY 2015-16 i.e. as per the category wise actual revenue collected and actual units sold of FY 2015-16. Accordingly, the revenue for Intra-State Sales have been estimated as Rs. 6536.76 Crore and Rs. 6963.68 Crore for the FY 2016-17 and the FY 2017-18 respectively after considering collection efficiency of 99%.

n) Revenue from Inter-State Sales

Revenue from inter-state sales projected for FY 2016-17 and FY 2017-18 has been considered at 80% of average variable power purchase cost.

o) Agriculture Subsidy

UHBVNL has submitted Agriculture Subsidy for the FY 2017-18 have been taken after escalating the approved subsidy of FY 2016-17 by 5%.

p) Revenue from FSA

The Petitioner has submitted that in pursuant to the directive of Commission given vide the tariff order dated 01.08.2016, it has filed replies vide Memo No. CH-55/SE/RA/N/F-24/VOL-XI (A) dated 16.09.2016. The Petitioner has also filed Review petition against the impugned tariff order dated 01.08.2016 vide Memo No. CH-19/GM/RA/N/F-25/VOL-63 dated 19.10.2016. The Nigam has proposed levy of FSA across the categories at the rate determined vide order dated 19.03.2016 against the

confirmed liabilities rising on account of APTEL judgements on Change in Law, CoD and Force Majeure. The Nigam has considered an income of FSA against these liabilities in FY 2016-17 and FY 2017-18 i.e. Rs 1119.13 Cr and Rs 1192.16 Cr.

2.2.2 Proposed ARR (UHBVNL)

Summary of the aggregate revenue requirement, proposed by UHBVNL, is as under:-

Summary of ARR for FY 2016-17 & FY 2017-18 of UHBVNL (Rs. Crore)

Summary of Actual ARR		*FY 2016-17*	*FY 2017-18*
Sr.	***Particulars***	***Projected***	***Projected***
1	**Total Power purchase cost**	**10,484.20**	**10,959.56**
1.1	*Power Purchase Expenses*	*9,327.64*	*9,764.60*
1.2	*Inter State Transmission Charge*	*495.59*	*512.05*
1.3	*Intrastate transmission charges and SLDC charges*	*660.97*	*682.92*
2	**Operations and Maintenance Expenses**	**1,246.45**	**1,288.05**
2.1	*Employee Expense*	*651.61*	*676.35*
2.2	*Administration & General Expense*	*78.09*	*81.06*
2.3	*Repair & Maintenance Expense*	*116.75*	*130.64*
2.4	*Terminal Liability*	*400.00*	*400.00*
3	**Depreciation**	**295.24**	**339.37**
4	**Total Interest & Finance Charges**	**1,305.42**	**1,136.94**
5	**Return on Equity Capital**	**245.38**	**268.19**
6	Prior Period Expense		
7	Bad and Doubtful Debts	42.39	44.63
8	Other Expense		
9	**Total Expenditure**	**13,619.09**	**14,037.01**
10	Less: Non Tariff Income	190.15	197.25
11	**Net Aggregate Revenue Requirement**	**13,428.94**	**13,839.75**
12	**Total Revenue**	**7,201.64**	**7,734.03**
13	*Revenue from Interstate sales*	*664.88*	*770.36*
14	*Revenue from Intrastate sales @current tariff*	*6,536.76*	*6,963.68*
15	*Revenue From FSA From Current Year*		
16	**Regulatory Gap**	**(6,227.30)**	**(6,105.72)**
17	Govt. subsidy (excluding FSA subsidy)	3,860.74	3,738.13
18	True-Up of Subsidy FY 2015-16		145.10
19	**Regulatory GAP after subsidy**	**(2,366.55)**	**(2,222.49)**
20	**Revenue From FSA**	**1,276.51**	**1,192.16**
21	*FSA of Order Dated 19.03.2015*	1,119.13	1,192.16
22	*FSA of FY 2014-15 @ 37 Paisa*	145.58	
23	*FSA of FY 2015-16 @ 03 Paisa*	11.80	
24	**Net GAP**	**(1,090.05)**	**(1,030.33)**
25	*True up of Expenses of FY 2014-15*	*671.23*	
26	**Net Reg. GAP after Considering True-Up of FY 2014-15**	**(1,761.27)**	**(1,030.33)**

Wheeling and Retail Supply ARR of UHBVN

Summary of Actual ARR				FY 2016-17		FY 2017-18	
Sr.	***Particulars***	***Wheeling***	***Retail***	***Wheeling***	***Retail***	***Wheeling***	***Retail***
1	**Total Power purchase cost**	**0%**	**100%**	**-**	**10,484.20**	-	**10,959.56**
1.1	*Power Purchase Expenses*	*0%*	*100%*	-	*9,327.64*	-	9,764.60

1.2	*Inter State Transmission Charge*	*0%*	*100%*	-	*495.59*	-	512.05
1.3	*Intrastate transmission charges and SLDC charges*	*0%*	*100%*	-	*660.97*	-	682.92
2	**Operations and Maintenance Expenses**			**619.30**	**627.15**	**642.14**	**645.91**
2.1	*Employee Expense*	*48%*	*52%*	*312.77*	*338.84*	324.65	351.70
2.2	*Administration & General Expense*	*42%*	*58%*	*32.80*	*45.29*	34.04	47.01
2.3	*Repair & Maintenance Expense*	*70%*	*30%*	*81.73*	*35.03*	91.44	39.19
2.4	*Terminal Liability*	*48%*	*52%*	*192.00*	*208.00*	192.00	208.00
3	**Depreciation**	**82%**	**18%**	**242.10**	**53.14**	**278.51**	**61.14**
4	**Total Interest & Finance Charges**			**294.99**	**1,010.43**	**331.83**	**805.12**
4.1	*Interest on Long Term Loan*	*90%*	*10%*	185.00	20.56	245.40	27.27
4.2	*Interest on Short Term Loan*	*10%*	*90%*	101.61	914.45	76.05	684.47
4.3	*Interest on security Deposit*	*10%*	*90%*	8.38	75.43	10.38	93.38
5	**Return on Equity Capital**	**90%**	**10%**	**220.84**	**24.54**	**241.37**	**26.82**
6	Prior Period Expense			-	-	-	-
7	Bad and Doubtful Debts	29%	71%	12.29	30.10	12.94	31.69
8	Other Expense			-	-		
9	**Total Expenditure**	**10%**	**90%**	**1,389.52**	**12,229.57**	**1,506.78**	**12,530.23**
10	Less: Non Tariff Income	11%	89%	20.92	169.24	21.70	175.56
11	**Net Aggregate Revenue Requirement**			**1,368.60**	**12,060.33**	**1,485.08**	**12,354.67**
12	**Total Revenue**			**1,895.66**	**5,305.98**	**2,019.47**	**5,714.57**
12.1	*Revenue from Interstate sales*	*0%*	*100%*	-	*664.88*	-	770.36
12.2	*Revenue from Intrastate sales @current tariff*	*29%*	*71%*	*1,895.66*	*4,641.10*	2,019.47	4,944.21
12.3	*Revenue From FSA From Current Year*			-	-	-	-
13	**Regulatory Gap**			**527.06**	**(6,754.35)**	**534.38**	**(6,640.10)**
13.1	Govt. subsidy (excluding FSA subsidy)	*0%*	*100%*	-	3,860.74	-	3,738.13
13.2	True-Up of Subsidy FY 2015-16	*0%*	*100%*	-	-	-	145.10
15	**Regulatory GAP after subsidy**			**527.06**	**(2,893.61)**	**534.38**	**(2,756.87)**
16	**Revenue From FSA**			**370.19**	**906.32**	**345.73**	**846.44**
16.1	*FSA of Order Dated 19.03.2015*	*29%*	*71%*	324.55	794.58	345.73	846.44
16.2	*FSA of FY 2014-15 @ 37 Paisa*	*29%*	*71%*	42.22	103.36	-	-
16.3	*FSA of FY 2015-16 @ 03 Paisa*	*29%*	*71%*	3.42	8.38	-	-
17	**Net GAP**			**897.24**	**(1,987.29)**	**880.11**	**(1,910.44)**

Thus, the Petitioner has estimated the net cash gap in the FY 2017-18 at Rs.1030.33 Crore.

2.2.3 ARR of DHBVNL

(a) Summary of ARR

The Petitioner i.e. DHBVNL, has followed similar methodology as adopted by UHBVNL (as discussed above) for proposing various components of True-up for the FY 2015-16, Annual Performance Review for the FY 2016-17 and revised ARR for the FY 2017-18. Hence, for the sake of brevity, the same are not being reproduced here.

The Petitioner has prayed to continue with the current levels of tariff and FSA based on which the total ARR gap for the FY 2017-18 has been projected at Rs. 1004 Crore to be recovered through the Operational Funding Requirement (OFR) as proposed under UDAY Scheme.

(b) Energy Balance and Power Purchase for Haryana for FY 2016-17 and FY 2017-18

The power purchase quantum (including Jind Circle) has been projected by the Petitioner at 28,880.77 MUs and 29704.43 MUs at a cost of Rs. 11792.20 Crore and 12409.62 Crore for the FY 2016-17 and the FY 2017-18 respectively inclusive of transmission charges.

Energy Balance for Haryana for the FY 2016-17 and FY 2017-18

Energy Balance	Units	FY 2016-17	FY 2017-18
Power Purchase at State Periphery	Mus	28,880.77	29,704.43
Energy Sales to the Consumers	Mus	19,596.00	20,839.00
Distribution loss	%age	21.70%	17.94%
Energy Sales at Discom Periphery	Mus	25,025.85	25,394.65
Intra- State Transmission Loss	%age	2.46%	2.46%
Energy Sales at State Periphery	Mus	25,657.01	26,035.11
Deficit met through Banking	Mus	382.52	313.53
Surplus	Mus	2,975.64	3,420.68

(c) Transmission Losses

For the FY 2016-17, the Inter-State transmission losses and the Intra-State transmission losses have been considered by DHBVNL as 3.82% and 2.46% respectively as approved by the Commission in its MYT Order for the FY 2016-17.

(d) Distribution losses

DHBVNL has projected Distribution Losses for the FY 2016-17 and the FY 2017-18 at 21.70% and 17.94% respectively.

(e) Non-Tariff Income

The petitioner has projected non-tariff income for FY 2016-17 and FY 2017-18 at escalation rate of 5% based on the actual of FY 2015-16. The Petitioner has requested to the Commission to approve non-tariff income of Rs. 235.68 Cr. for the FY 2016-17 and 247.47 Cr. for the FY 2017-18.

The Petitioner has further submitted that the delayed payment surcharge is collected against the receivables from the consumers that are not received in time. As there is a delay in receiving the revenue, the Nigam has to raise additional working capital. Therefore, the revenue received on account of delayed payment surcharges is not an income of the Nigam, rather it is a carrying cost recovered from consumers to pay for the interest on the increased portion of the working capital requirement on account of the delay in recovering the revenue for sale of power to the consumers. Therefore, the Petitioner has requested that the revenue from delayed payment surcharge may not be considered as part of the income of the Nigam.

(f) Capital Expenditure

The Petitioner has submitted that the Commission had approved its proposal in respect of Capex Plan of Rs.1200 Crore for the FY 2016-17. However, based on the available half yearly details of actual capital expenditure done by DHBVNL and realistic estimate for the second half of FY 2016-17, it is estimated to undertake capital expenditure of Rs. 825 Crore for the FY 2016-17 and Rs. 1200 Crore for the FY 2017-18.

DHBVNL has further projected all other components of the ARR on the same methodology as adopted by UHBVNL. The aggregate revenue requirement for the FY 2016-17 and the FY 2017-18 including its disaggregation into Wheeling and Supply business filed by DHBVNL is as under:-

DHBVNL Proposed ARR for FY 2016-17 and FY 2017-18

Summary of Actual ARR			
Sr.	**Particulars**	**Revised Estimate for FY 2016-17**	**Projected for FY 2017-18**
1	Total Power Purchase Cost	13,316.55	14,010.19
1.1	Power Purchase Expenses	11,792.20	12,409.62
1.2	Inter-state transmission charges	856.40	899.22
1.3	Intra-state transmission charges	667.95	701.34
2	Operations and Maintenance Expenses	1,370.88	1,392.76
2.1	Employee Expense	786.03	815.88
2.2	Administration & General Expense	74.87	77.72
2.3	Repair & Maintenance Expense	109.99	114.16
2.4	Terminal Liability	400.00	385.00
3	Depreciation	236.24	315.80
4	Total Interest & Finance Charges	1,143.08	907.00
5	Return on Equity Capital	215.88	242.42
6	Prior Period Expense		
7	Other Debits	32.49	32.49
8	**Total Expenditure**	**16,315.11**	**16,900.65**

9	***Less:*** Non Tariff Income	235.68	247.47
10	**Net Aggregate Revenue Requirement**	**16,079.43**	**16,653.18**
11	**Total Revenue**	**10,366.09**	**11,120.88**
11.1	Revenue from Interstate sales	613.58	711.76
11.2	Revenue from Intrastate sales	9,752.51	10,409.12
13	**Regulatory (Gap)/Surplus**	**(5,713)**	**(5,532)**
14.1	Govt. subsidy	2,373.42	2,492.09
14.2	True-up of Subsidy FY 2014-15	200.41	
14.3	True-up of Subsidy FY 2015-16		96.73
16	**Revenue (Gap)/Surplus after Subsidy**	**(3,140)**	**(2,943)**
17	**Revenue (Gap)/Surplus after FSA**	**(1,011)**	**(1,004)**
17.1	FSA of Order Dated 19.03.2015	**1,823.61**	**1,939.58**
17.2	FSA @ 40 p	**305.32**	

Wheeling and Retail ARR for FY 2016-17 and FY 2017-18 ARR of DHBVNL

Summary of Actual ARR				FY 2016-17		FY 2017-18	
Sr.	***Particulars***	***Wheeling***	***Retail***	***Wheeling***	***Retail***	***Wheeling***	***Retail***
1	**Total Power purchase cost**	**0%**	**100%**	**-**	**10,484.20**	-	**10,959.56**
1.1	*Power Purchase Expenses*	*0%*	*100%*	-	*9,327.64*	-	9,764.60
1.2	*Inter State Transmission Charge*	*0%*	*100%*	-	*495.59*	-	512.05
1.3	*Intrastate transmission charges and SLDC charges*	*0%*	*100%*	-	*660.97*	-	682.92
2	**Operations and Maintenance Expenses**			**619.30**	**627.15**	**642.14**	**645.91**
2.1	*Employee Expense*	*48%*	*52%*	*312.77*	*338.84*	324.65	351.70
2.2	*Administration & General Expense*	*42%*	*58%*	*32.80*	*45.29*	34.04	47.01
2.3	*Repair & Maintenance Expense*	*70%*	*30%*	*81.73*	*35.03*	91.44	39.19
2.4	*Terminal Liability*	*48%*	*52%*	*192.00*	*208.00*	192.00	208.00
3	**Depreciation**	**82%**	**18%**	**242.10**	**53.14**	**278.51**	**61.14**
4	**Total Interest & Finance Charges**			**294.99**	**1,010.43**	**331.83**	**805.12**
4.1	*Interest on Long Term Loan*	*90%*	*10%*	185.00	20.56	245.40	27.27
4.2	*Interest on Short Term Loan*	*10%*	*90%*	101.61	914.45	76.05	684.47
4.3	*Interest on security Deposit*	*10%*	*90%*	8.38	75.43	10.38	93.38
5	**Return on Equity Capital**	**90%**	**10%**	**220.84**	**24.54**	**241.37**	**26.82**
6	Prior Period Expense			-	-	-	-
7	Bad and Doubtful Debts	29%	71%	12.29	30.10	12.94	31.69
8	Other Expense			-	-		
9	**Total Expenditure**	**10%**	**90%**	**1,389.52**	**12,229.57**	**1,506.78**	**12,530.23**
10	Less: Non Tariff Income	11%	89%	20.92	169.24	21.70	175.56
11	**Net Aggregate Revenue Requirement**			**1,368.60**	**12,060.33**	**1,485.08**	**12,354.67**
12	**Total Revenue**			**1,895.66**	**5,305.98**	**2,019.47**	**5,714.57**
12.1	*Revenue from Interstate sales*	*0%*	*100%*	-	*664.88*	-	770.36

12.2	*Revenue from Intrastate sales @current tariff*	*29%*	*71%*	*1,895.66*	*4,641.10*	2,019.47	4,944.21
12.3	*Revenue From FSA From Current Year*			-	-	-	-
13	**Regulatory Gap**			**527.06**	**(6,754.35)**	**534.38**	**(6,640.10)**
13.1	Govt. subsidy (excluding FSA subsidy)	*0%*	*100%*	-	3,860.74	-	3,738.13
13.2	True-Up of Subsidy FY 2015-16	*0%*	*100%*	-	-	-	145.10
15	**Regulatory GAP after subsidy**			**527.06**	**(2,893.61)**	**534.38**	**(2,756.87)**
16	**Revenue From FSA**			**370.19**	**906.32**	**345.73**	**846.44**
16.1	*FSA of Order Dated 19.03.2015*	*29%*	*71%*	324.55	794.58	345.73	846.44
16.2	*FSA of FY 2014-15 @ 37 Paisa*	*29%*	*71%*	42.22	103.36	-	-
16.3	*FSA of FY 2015-16 @ 03 Paisa*	*29%*	*71%*	3.42	8.38	-	-
17	**Net GAP**			**897.24**	**(1,987.29)**	**880.11**	**(1,910.44)**

Thus, the Petitioner(s) UHBVN and DHBVN have estimated net cash gap in the FY 2017-18 at Rs. 1004 Crore and Rs.1910.44 Crore respectively.

2.3 Public Proceedings

In accordance with the provisions of Section 64 (2) of the Electricity Act, 2003, UHBVNL & DHBVNL published their respective petitions, in abridged form, in order to ensure public participation. The Public Notice was issued by UHBVNL in the Dainik Jagran (Hindi) dated 09.12.2016 & The Tribune (English) dated 08.12.2016 and by DHBVNL in The Tribune (English) on 07.12.2016 and Dainik Bhaskar (Hindi) on 06.12.2016, inviting objections / suggestions / comments from the stakeholders. The petitions were also hosted by UHBVNL & DHBVNL on their respective websites i.e. www.uhbvn.org.in and www.dhbvn.org.in

Subsequently, the Commission issued Public Notice in the Tribune (English) and Dainik Jagran (Hindi) dated 16.02.2017 inviting objections and intimating the date of hearing the Petition(s). The Public Notice was also hosted on the website of the Commission under the heading “Schedule of Hearings”.

Public hearings were held, as scheduled, on 16.03.2017 at 10:30 A.M. in respect of MYT APR/ ARR/Tariff petitions (including additional surcharge) of UHBVNL and 16.03.2017 at 03:00 P.M. in respect of MYT APR/ ARR/Tariff petitions of DHBVNL in the Conference Hall of the Commission. The Discoms i.e. UHBVNL and DHBVNL made detailed presentations of their respective ARR proposals in the hearings wherein they highlighted their various achievements and initiatives to improve efficiencies besides

dwelling on the projections/proposals made in their respective Petitions under consideration of the Commission.

A summary of the objections filed by the stakeholders, replies filed by the Discoms and Commission' view thereto is as under:-

2.3.1 Objections from Stakeholders and Discoms Reply thereto

In response to the Public Notice issued by the Commission in the present case, the stakeholders/general public as listed below filed their objections/comments:-

1. Jindal Stainless Limited, through Sh. R.K. Jain Hisar.
2. Faridabad Industries Association, FIA House, Bata Chowk, Faridabad.
3. Sh. Pankaj Bhalotia.
4. Indian Energy Exchange
5. Haryana Chamber of Commerce & Industry (Regd.), Panchkula.
6. Sh. Rakesh Aggarwal, Chairman, Lok Saravhitkar Society, # 700, Sector-12, Panchkula.

A few stakeholders filed their objections / comments / suggestions after the cut-off date of filing objections as notified by the Commission and they did not forward a copy of the same to the Discoms concerned to enable them to file their reply. Nonetheless, all the objections received in the Commission have been included in the present Order.

A brief summary of the objections and Discoms replies thereto is as under:-

2.3.2 Objections filed by Jindal Stainless (Hisar) Limited,

I. TRUE UP OF FY 2015-16:

DHBVN has submitted its application for truing up the financial results of the year 2015-16. The application shows a large variation in all important performance statistics as compared to the parameters approved by the Commission. For ready reference some of the important parameters are given hereunder:-

Rs. Crore

Parameter	Approved by HERC	Revised by HERC	Actual by DHBVN	Variation (%)
Cost of power purchase	10,159.79	12,306.33	*11,048.63	(-) 8.98
Transmission charges	556.71	1,150.89	1,450.77	26.06
O&M Expenses	888.09	827.05	*1,137.46	37.53

Employees expenses	540.99	518.52	*637.46	22.94
A&G expenses	65.25	60.46	72.13	19.30
R & M Cost	131.85	98.07	35.64	(-)63.66
Interest & Financing cost	609.38	330.16	*1,772.19	487.60
Depreciation	320.29	202.26	199.89	
ROE	-	-	203.83	Not allowed
Net Annual Expenses	12,631.34	13,759.81	15,845.42	
Total Income			12,337.15	
Revenue Gap		667.11	757.47	13.55
CAPEX	867.29	867.29	588.15	(-)32.18

*Parameters which are controllable as per MYT Regulations.

The Utility has approached the Commission to allow a true up of Rs.757.47 Crore, which is nothing but an attempt to camouflage the inefficiency by the Utility and seek relaxations over the figures approved by the Commission. It needs to be appreciated that if such relaxations are to be allowed, then the very purpose of the detailed exercise of approving ARR and other performance parameters becomes in-fructuous. Ultimately the consumers have to bear the difference by way of successive tariff increase. Moreover, these figures do indicate the lack of seriousness of the licensee to achieve the fixed parameters.

It would be recalled that every year such non-compliance of performance targets fixed by the Commission result in accumulation of losses of the Utilities which ultimately are to be made good from the corresponding tariff increase and ultimate financial burden to the electricity consumers.

Although, Commission had made a special provision of Rs.1100 Crore for purchase of RECs in the ARR of FY 2015-16 but the Licensee did not utilize the same for the reasons best known to them.

While reviewing the CAPEX Plan for the year 2015-16, Commission had observed as under,

3.25.3 Review of capital investment plan for FY 2015-16

3.25.3.2 DHBVNL

The licensee through their Review Petition also sought revision of their capital investment plan for FY 2015-16. Against capital investment plan of Rs. 867.29 Crores approved by the Commission, the licensee indicated that the likely expenditure for FY 2015-16 would be to the tune of Rs. 1334.22 Crores. However, through their revised submissions made on 13.03.2015, the licensee has intimated that the likely expenditure during FY 2015-16 would be to the tune of Rs. 1000.67 Crores. The Commission feels that it would be very early at this stage to revise the capital investment plan for FY 2015-16 specially looking at the licensee's spending capacity demonstrated in the past as well as during the

current year, which has been far below Rs. 1000 Crores. ***As such the capital investment plan of the licensee for FY 2015-16 has not been revisited. This would be examined at the time of next review of the licensee's performance.***

Both the licensees shall execute their capital investment plans for the control period FY 2014-15 to FY 2016-17 as per Regulations 9.7 to 9.12 of the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012.

Similarly while examining the trend of continuing distribution losses, Commission had observed as under,

3.27 Distribution Losses

While reviewing the distribution losses for the year 2015-16 Commission had made the following observations.

The two distribution licensees are directed to explain the reason of under achievement even after re-fixing of their distribution loss level/AT&C loss trajectory by the Ministry of Power Govt. of India*. [Page 163]*

Even while considering the provision for Return on Equity as a part of the true up exercise, Commission made following observations,

3.1.11 Return on Equity

UHBVNL and DHBVNL have proposed true up of return on equity for the FY 2013-14 amounting to Rs. 228.24 crores and Rs. 201.48 crores respectively. The true up has to be necessarily based on the principles of approved ARR and the relevant regulations. Hence, no return on equity can considered as part of the true up process in accordance with the ARR and Tariff Order for the FY 2013-14.

Another important observation made by the Commission was on the non submission of Cost of Service by the Licensee,

a. Cost of service (CoS)

The Hon'ble APTEL in its recent judgement dated 24.03.2015 in Appeal No. 103 of 2012 while dealing with the CSS, set aside the methodology adopted by the Commission. The Hon'ble APTEL in the said judgement referred to their judgement dated 30.05.2011 in Appeal No. 102,103 & 112 of 2010, wherein they have given a broad framework for estimating CoS. The Commission, given the fact that the Discoms are still in the process of finalising CoS, has considered it appropriate to adopt the methodology suggested by the Hon'ble APTEL in their judgement dated 30.05.2011 till the time the Discoms submits a comprehensive voltage wise CoS. ***The Commission directs the Discoms to submit Cost of Service study within six months from the date of the present Order.*** *The Commission has discussed the methodology as per ibid judgement of the Hon'ble Appellate Tribunal for Electricity and adopted by the Commission in the present Order while estimating the Cross-Subsidy Surcharge at para 5.2.*

Commission had also taken a serious note of the persistent high feeder losses in the system and even proposed to take action against the concerned officers under S.142,

Feeder with high losses

The Commission on examination of data (for the period April 2014 to September 2014) provided by UHBVNL, observes that that out of total 3656 feeders, 351 (9.60%) feeders were having losses between 25% & 50% and 788 (21.55%) feeders were having losses above 50%. Instead of showing any improvement over the performance of last year, the number of feeders having losses above 50% have increased from 753 to 788. Similar data of DHBVNL for the period April, 2014 to September, 2014 shows that out of total 4087 number 11 KV feeders, 916 (22.41%) feeders were having losses between 25% & 50% and 526 (12.87%) feeders were having losses above 50%. In their case also, instead of showing any improvement over the performance of last year, the number of feeders having losses above 50% have increased from 506 to 526.

As stated above there are feeders, both urban and rural, on which the losses are consistently above 50%, but the licensees have not bothered to get energy audit of such feeders done and take suitable measures to curtail the same. The Commission views this lapse on the part of licensees very seriously.

The licensees are directed that the number of rural feeders with line losses above 50% as on 31.03.2015 be brought down to half by the end of the FY 2015-16 and losses of all urban feeders be brought down below 25% by the next ARR/APR filing. A failure to comply with the targets set by the Commission shall attract penal action under section 142 of the Electricity Act, 2003 against the official concerned i.e. XEN and above.

The Licensee has come up with a proposal to true up the RE Subsidy for FY 2015-16 and indicated a shortfall of Rs.241.83 Crore. This is based on the assumption that the average losses on rural feeders are 16%. This is a big fallacy which is supported by the observations made by the Commission, as reproduced above. Actual average feeder losses in rural areas are not less than 30% and if we take that figure into account, it would be clear that the RE Subsidy allowed by the State is even higher than the eligible amount. Rather this is one area where the Licensee is covering up its inefficiency and misleading the State Govt. also by way of claiming much higher RE Subsidy than actually receivable.

II. ANNUAL REVENUE REQUIREMENT FOR FINANCIAL YEAR 2017-18:

1. Estimates for the sale of power to various categories of consumers.

Energy Sales projections are one of the most important input for projecting the ARR of the Utility. Every year the Commission carries out a detailed analysis of the sales estimates submitted by the distribution licensees. The future projections are generally made on the CAGR of each category of consumers. It has been noticed that

every year the energy sales figures are exaggerated to get connected benefits and to enhance their Revenue Requirement projections.

Some of the glaring inconsistencies are,

1. As usual the estimates for non-domestic sales are totally off the mark;
2. For HT Industries, the first 6 months sales are 2304 MUs and for the later six months these are projected as 2531 MUs i.e. an increase of nearly 10%. This is also an unsupported assumption.
3. While energy sales to most of the subsidizing categories are shown as going down, only in the Agriculture category the sales have been shown as increased by 16%. The main reason is the absurd assumption of 16% average feeder wise losses. The actual losses, as already said above, are not less than 30% and it would be better to know the facts on ground to make correct assessment of the performance of the Licensee.
4. Even in the present ARR, it has been projected that the agriculture consumption would further increase by 5% over and above the exaggerated sales figures. It would be better to take a realistic view.

2. Estimates for energy availability and cost of power purchase:

The Commission, while considering the revised ARR for the year 2016-17 had approved the total power purchase volume of 28,217.04 MUs for the year 2016-17 with a cost of Rs.106325.48 million or average cost of power Rs.3.90/unit and as per the latest ARR, the corresponding projections are, 28,885.4 MUs and Rs.11,220.91 million with an average cost of Rs.4.31/unit.

It is worth noting that the Utility has mentioned that it will sell the surplus power (estimated as 2976 MUs for the year 2016-17) through inter-State sales at 80% of the average power purchase cost i.e. a direct loss to the Utility and ultimate increase in revenue gap or increase in consumer tariffs. This goes to prove that the power procurement planning of the Utility needs to be improved so as to minimize inter-State sales.

3. Estimates for O&M Expenses:

The Licensee has assumed a flat increase of 3.8% in the O&M expenses. There is need to reduce the expenses and spell out the step taken in this direction.

4. Estimates for Employee Expenses:

Against the approved employee cost of Rs.629.03 Crore for the year 2016-17, the Licensee has projected a figure of Rs.786.03 Crore i.e. an increase of over 25%. There is no effort on the part of the Licensee to reduce the employee cost by resorting to outsourcing of activities or introduction of automation. Extra manpower should be truncated by introducing strict performance reviews.

5. Estimates for R&M Expenses:

Against an actual R&M expense figure of Rs.35.64 Crore reported by the Licensee for the year 2015-16, the provision asked for in FY 2016-17 and 2017-18 is Rs.109.99 Crore and Rs.114.16 Crore respectively. This is one area where the consumers would like the licensee to be more proactive and carry out wide spread repair and maintenance of the distribution systems so that the quality of power supply may improve but there is hardly any attempt and this expenditure always remains the casualty.

6. Estimates for Capital Expenditure:

The Utility has projected CAPEX requirement of Rs. 825 Crore for the year 2016-17 against the approved figure of Rs.1200 Crore i.e. reduction of 32%. The investment allowed to be made must be linked with the resultant targeted improvement in the performance parameters so that the investments are self rewarding. The provision for CAPEX also needs to be related to the past capability of the Licensee to execute the improvement works.

7. Interest & Financing Charges:

Inspite of the fact that Haryana State was one of the first States to accept Ujjawal Discoms Assurance Yojna (UDAY) Scheme notified on 20.11.2006 by the Govt. of India for operational and financial turnaround of power distribution companies under which all debts of Discoms as on 30.09.2015 were to be taken over by the State. The licensee has projected requirement of interest and financing charges of Rs.1143.08 Crore and Rs.907.00 Crore for the years 2016-17 & 2017-18 respectively. Whereas, the corresponding provision approved by Commission for the year 2016-17 was only Rs.189.89 Crore. We presume that there should have been substantial impact on account of UDAY Scheme and it should get reflected in the ARR/ tariff payable by the

consumers. We would urge that only the genuine portion of loans and interest thereon may please be allowed instead of financing for the in-efficiency of the licensee.

8. Return on Equity:

While the Commission has been rightly disallowing the demand for RoE year after year but again the Licensee has projected a demand for RoE of Rs.215.88 Crore and Rs.242.42 Crore for the years 2016-17 and 2017-18 respectively. There is no justification for this provision and we would request that this may be disallowed.

9. Projected Revenue Gap:

It is worth serious consideration that while the Commission had projected a revenue surplus of Rs.954.18 Crore for the year 2016-17, the licensee has maintained a demand for uncovered revenue gap of Rs.1011 Crore. If we go by these figures, it will amount to negative performance of the Licensee by Rs.1965.18 Crore in current year alone. Although no tariff revision has been proposed but it is evident that to meet the revenue gap the Commission may have to take some harsh steps.

III. IMPORTANT ISSUES NEEDING IMMEDIATE ATTENTION OF THE COMMISSION:

There are a couple of issues which are being brought to the kind notice of the Commission as these are resulting in un-necessary burden on the consumers;

1. Recovery of Fuel Surcharge Adjustment in an arbitrary manner:

S.61 of the Electricity Act, 2003 provides for the specifying the terms and conditions for determination of tariff with special reference to various guidelines including the following:-

> *"(c) the factors which would encourage competition, efficiency, economical use of the resources, good performance and optimum investments;*
>
> *(d) safeguarding of consumers' interest and at the same time, recovery of the cost of electricity in a reasonable manner;*
>
> *(e) the principles rewarding efficiency in performance;*
>
> *(f) multi year tariff principles;*
>
> *(g) that the tariff progressively reflects the cost of supply of electricity and also, reduces and eliminates cross-subsidies within the period to be specified by the Appropriate Commission;"*

S.62 (4) of Electricity Act, 2003 provides for the manner in which tariffs are to be revised and reads as under,

> *"(4) No tariff or part of any tariff may ordinarily be amended more frequently than once in any financial year, except in respect of any changes expressly permitted under the terms of any fuel surcharge formula as may be specified."*

Regulation 66 of the HERC (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012 provide for the recovery of FSA on quarterly basis. It reads as under,

> ***"66. Fuel and Power Purchase Cost Surcharge Adjustment (FSA)***
>
> *66.1 The distribution licensees shall recover FSA amount on account of increase in fuel and power purchase costs from the consumers on a quarterly basis so as to ensure that FSA accrued in a quarter is recovered in the following quarter without going through the regulatory process i.e. FSA for the quarter "July to September" is recovered in the following quarter "October to December".*
>
> *66.2 FSA shall be calculated only in respect of approved power purchase volume including short term power purchase cost, if any, for the relevant year from all approved sources. Drawl of power under UI mechanism, if any, shall be allowed only when it is not in violation of grid discipline and shall be subject to a price cap of average revenue realisation from all consumer categories for that year.*
>
> *Average revenue realisation = (Total revenue assessed for electricity supply in Rs + Government Subsidy in Rs) / Total sales in Units.*

Inspite of these clear policy guidelines, the distribution licensee is levying the FSA purely on arbitrary manner. The Commission has given clear verdict about the recovery of FSA over a designated period but the Utility is continuing to recover the past FSA irrespective of the expiry of permitted date.

Even in the last order dated 19.03.15 Commission clubbed all the pending unrecovered gap of all previous FSAs and worked out a figure of Rs.3591.52 Crore to be recovered over next two years. The relevant extract from the order are as follows,

> *The Commission observes that the consumers of Haryana are already paying for these FSA's as per rates based on different Orders/ Regulations of the Commission and it would not be fair on the consumers to rework the rate of recovery which may end up to the disadvantage of some categories of consumers. The Commission, therefore, Orders that the recovery of these FSA's be continued at the existing rate till such time the total amount as determined above, is fully recovered. However, for ease of accounting purpose the Commission decides to combine the amount recoverable on account of FSA's for different year and also combine the recoveries being made separately for*

these FSA's from the consumers. The Commission observes that at the existing rate of recovery, the approved amount along with holding cost is likely to be recovered within two years.

The DISCOMS are directed to file quarterly status of recovery of FSA and stop the recovery once the total FSA along with holding cost is recovered.

Further Commission had admitted the fact that recovery of FSA in DHBVN is faster than UNBVN so the recovery in DHBVN should have been over by now. The observations made by Commission were as follows,

as there is a variation in the mix of consumer in both the utilities, hence the rate of FSA recovery in UHBVNL is lower than the rate of FSA in DHBVNL.

There is a misconception in the mind of the Licensee that FSA is a source of income or part of tariff. The fact is that the FSA was permitted under S.62 (4) of the Act as a stop gap arrangement till the tariffs were revised annually. But this has become a perpetual charge and constitutes a substantial part of the overall tariff for the consumers. When the new tariff order is notified, the previous FSAs must be merged in the tariff. This is how in most of the States FSA, if any, is merged in the revised approved tariff.

2. Need for reduction of cross subsidy surcharge on open access power:

S.42 of the Electricity Act, 2003 lay down duties of distribution licensees and provides as under with regard to levy of surcharge and cross subsidy surcharge,

"Provided that such open access may be allowed on payment of a surcharge in addition to the charges for wheeling as may be determined by the State Commission :

Provided further that such surcharge shall be utilised to meet the requirements of current level of cross subsidy within the area of supply of the distribution licensee:

Provided also that such surcharge and cross subsidies shall be progressively reduced in the manner as may be specified by the State Commission:"

National Electricity Policy, 2005 lays down emphasis on reducing cross subsidies and to create environment where every consumer pays for the cost of service. Specific Provisions of this Policy are reproduced hereunder,

"5.4 Distribution

9.4.1 Distribution is the most critical segment of the electricity business chain. The real challenge of reforms in the power sector lies in efficient management of the distribution sector.

5.4.2 The Act provides for a robust regulatory framework for distribution licensees to safeguard consumer interests. It also creates a competitive framework for the distribution business, offering options to consumers, through the concepts of open access and multiple licensees in the same area of supply."

"5.5 Recovery of Cost of Services & Targetted Subsidies

*5.5.*1 There is an urgent need for ensuring recovery of cost of service from consumers to make the power sector sustainable.

5.5.3 Over the last few decades cross-subsidies have increased to unsustainable levels. Cross-subsidies hide inefficiencies and losses in operations. There is urgent need to correct this imbalance without giving tariff shock to consumers. The existing cross-subsidies for other categories of consumers would need to be reduced progressively and gradually".

Inspite of these clear Policy guidelines, there is very heavy cross subsidy element in the electricity tariff in Haryana, which is causing undue burden on the subsidizing sector of consumers. There has been no attempt to reduce cross subsidy. The only major sector getting the benefit of cross subsidy is the 'Domestic sector'. Unless the cross subsidy on this sector is reduced successively other sectors like industry would continue to real under the pressure of heavy cross subsidies burden.

Even the latest Tariff Policy, 2016 notified on 16.01.2016 also addresses these very issues at length and reads as under;

4.0 OBJECTIVES OF THE POLICY

The objectives of this tariff policy are to:

(a) Ensure availability of electricity to consumers at reasonable and competitive rates;

(d) Promote competition, efficiency in operations and improvement in quality of supply;

(g) Evolve a dynamic and robust electricity infrastructure for better consumer services;

(h) Facilitate supply of adequate and uninterrupted power to all categories of consumers;

(i) Ensure creation of adequate capacity including reserves in generation, transmission and distribution in advance, for reliability of supply of electricity to consumers.

8.0 DISTRIBUTION

Supply of reliable and quality power of specified standards in an efficient manner and at reasonable rates is one of the main objectives of the National

Electricity Policy. The State Commission should determine and notify the standards of performance of licensees with respect to quality, continuity and reliability of service for all consumers.

Making the distribution segment of the industry efficient and solvent is the key to success of power sector reforms and provision of services of specified standards. Therefore, the Regulatory Commissions need to strike the right balance between the requirements of the commercial viability of distribution licensees and consumer interests. Loss making utilities need to be transformed into profitable ventures which can raise necessary resources from the capital markets to provide services of international standards to enable India to achieve its full growth potential. Efficiency in operations should be encouraged. Gains of efficient operations with reference to normative parameters should be appropriately shared between consumers and licensees.

8.5 Cross-subsidy surcharge and additional surcharge for open access

8.5.1 National Electricity Policy lays down that the amount of cross-subsidy surcharge and the additional surcharge to be levied from consumers who are permitted open access should not be so onerous that it eliminates competition which is intended to be fostered in generation and supply of power directly to the consumers through open access.

A consumer who is permitted open access will have to make payment to the generator, the transmission licensee whose transmission systems are used, distribution utility for the wheeling charges and, in addition, the cross subsidy surcharge. The computation of cross subsidy surcharge, therefore, needs to be done in a manner that while it compensates the distribution licensee, it does not constrain introduction of competition through open access. A consumer would avail of open access only if the payment of all the charges leads to a benefit to him.

While the interest of distribution licensee needs to be protected it would be essential that this provision of the Act, which requires the open access to be introduced in a time-bound manner, is used to bring about competition in the larger interest of consumers.

Haryana Commission had been reducing the cross subsidy surcharge over the past many years and it was 40% of the subsidy by the year 2013-14. It was only since the year 2014-15, the cross subsidy was again equated with the subsidy, thus resulting in abrupt increase of the cross subsidy surcharge. This also resulted in making purchase of power through open access much less attractive, which is also against the Policy Guidelines quoted above. Unless the cross subsidy to the subsidized sector is reduced, the resultant burden would continue to be on the subsidizing sector.

We would urge the Commission to address this issue and reduce the cross subsidy surcharge so as to make purchase of power through open access route more competitive and viable.

3. Need for reduction/doing away with the levy of Additional Surcharge:

The very basics of calculation of cost of so termed stranded generation capacity need to be examined in depth. The consumers are already paying for the cost of Fixed charges paid to the generating companies in multiple ways, like;

a) The Fixed Cost is fully booked in the cost of power purchase allowed to the Licensee through the ARR;

b) The Fixed Demand Charges recovered from the consumers include substantial part of the fixed cost borne by the Licensee;

c) While allowing True up at the end of the year any part of the unrecovered fixed cost is allowed to the Licensee;

d) While computing the FSA, any unrecovered gap in the cost of power purchase is fully figured in.

Thus there is no justification for the levy of Additional Surcharge, the amount which is already recovered under different heads.

4. Need for introduction of TOD tariff and allow lower tariff rates in night hours:

It needs to be appreciated that on the one hand Utility is saddled with such huge quantum of surplus power and it is sold over Power Exchange at far lower rates (80% of the Bulk Tariff). If the consumers are given this power at attractive price, this power could be utilized within the State itself.

5. Need for treating the two State Power Distribution Utilities as independent Companies:

Although the State unbundled its power sector in separate Licensees in the year 1999, but till date the two Distribution Utilities are tied with the biblical chord and have same electricity tariffs and Rules & Regulations. It is an admitted fact that the efficiency of two Companies is different and these end up with different revenue gaps/surpluses at the end of each financial years. As per past practice at the end of the year the benefits are divided without any corresponding benefit to the consumers in each

company. It is high time now that these Companies may be treated totally independent and if one is able to generate higher resources or operate better, the benefit should be passed on to the consumers of the area. There should be some incentive for better performing Utility.

6. Need for reduction in electricity tariff for industrial consumers:

As is very well known, the electricity tariffs for industrial consumers in Haryana are one of the highest in the country. The successive increase in tariff has put the State industry at a substantial loss. Many of the industries are already under severe debt trap as they are not able to meet even the cash requirements for day to day operations. Thus there is urgent need for the Commission to come to their rescue and help these industrial units to revive by giving suitable reduction in the electricity tariffs. This sector is highly cross subsidizing the subsidized sector of consumers. According to the national Electricity Policy and the Tariff Policy of the Govt. of India, it is the duty of the Appropriate Commission to reduce the cross subsidies and to achieve a scenario where every electricity consumer is required to pay the actual cost of service.

In Haryana where the agriculture sector is the biggest subsidized sector of consumers (consuming nearly 20-25% of the total sales) but this subsidy is being borne by the State Govt. The second largest subsidized sector is the Domestic sector (consuming nearly 20-25% of energy sales) and is likely to grow much faster than any other category of consumers. Over the years proportion of power sold to industries is on the decline, which needs to be reversed. This is not at all a healthy sign for the State. Industrial sector is the main contributor to the State revenues in addition to providing employment opportunities and helping development of infrastructure in the State.

7. State Govt. announcement to reduce FSA.

Hon'ble Chef Minister has very recently given a statement that the FSA will be reduced by 50-60 Ps/unit. The Industrial consumers welcome this step as the State Govt. is empowered under S.108 of the Electricity Act, 2003 to give such directions in matter of policy involving public interest.

8. Request for realigning the Domestic Tariff.

That the Commission, in its order dated 15.10.2015 in Petition Nos. HERC/RA-10/2015 and HERC/RA-11/2015, had reduced the tariff of Domestic consumers and had made the following specific observations,

Before parting with this Order, the Commission would like to record that in view of categorical assurance of the Discoms that the impact of these changes in the Domestic tariff/MMC on the ARR for the FY 2015-16 will be offset through efficiency gain by way of cost reduction including O&M expenses, the uncovered revenue gap of Rs. 667.11 Crore for the FY 2015-16 as given in the Tariff Order dated 07.05.2015 shall remain unchanged.

This assurance remained as blank as any other commitments of the Licensees. It needs to be asked from the Licensee that what improvement it has achieved so far in its operations. Such false assurances are bound to load the consumers by way of tariff hike. We would suggest that if the State Govt. wants to give subsided power to domestic consumers of BPL (below poverty line), it should give appropriate subsidy for this category of consumers. The concessional tariff may be only for BPL consumers. This will help in reducing the burden of cross subsidy surcharge on industrial consumers.

REPLY FILED BY DHBVNL

I. TRUE UP OF FY 2015-16

DHBVN submits that the figures considered for Truing up of FY 2015-16 are as per the audited accounts of FY 2015-16.

- In regard to Capital expenditure for FY 2015-16, it is submitted that the Commission had initially approved a Capital Expenditure of Rs 867.29 Cr. for DHBVN for FY 2015-16 in its order dated 7th May 2015 and revised approval of Rs 614.35 Crores in its order dated August 01, 2016. As per the audited annual accounts of DHBVN for FY 2015-16; the actual Capital Expenditure for DHBVN is Rs. 587.88 Cr. DHBVN.
- In regard to the Distribution losses, It is submitted that the Government of India has notified Ujwal Discom Assurance Yojana (UDAY) scheme for operational and financial turnaround of power distribution companies (DISCOMs), on 20th Nov 2015 under which State shall take over 75% of

Discom debt as on 30th September, 2015 over two years – 50% of Discom debt shall be taken over in FY 2015-16 and 25% in FY 2016-17. It is pertinent to mention that the UDAY projections are based on certain losses considered for operational and financial turnaround of the DISCOMs.

The Nigam submits that, DHBVN is mandated to achieve the loss trajectory as per the UDAY MoU which is as under:

	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
AT&C loss (%)	25.22%	22.48%	18.76%	15.00%
T&D loss (%)	24.46%	21.70%	17.94%	14.14%

It is pertinent to mention that the Commission has already been very stringent towards allowed distribution losses every year and thus the expenses allowed by the Commission every year while approving the annual revenue requirement are based on targeted loss levels approved by the Commission, and accordingly the disallowed loss levels, if any, are not considered for calculation of ARR.

The Nigam has constituted theft detection teams to reduce commercial leakages through theft/pilferage. The outstanding arrears from connected/disconnected consumers are also being recovered by launching arrear recovery drives/schemes and by assigning arrear recovery targets to the sub-divisions. Through the above submissions it is clear that the Nigam has been making the best efforts to reduce the losses and increase the quality of supply and system reliability.

DHBVN submits that the AT&C loss for FY 2015-16 was 26.89% against 25.22% as per UDAY trajectory. However, it is pertinent to mention that intense loss reduction activities under MGJG and LRP have helped us accomplish a loss level of 22.32% against the target of 22.48%. Thus, it is evident that DISCOMs is currently operating under the specified target levels.

- In regard to the voltage wise CoS, Nigam submits that the Commission in line with the APTEL judgment dated 30.05.2011 in Appeal No. 102,103 & 112 of 2010 had adopted the methodology suggested by the Hon'ble APTEL in the ibid judgment dated 30.05.2011 for broadly working out voltage wise CoS for the FY 2015-16. However, the Nigam further submits that for computation of CSS, the Commission has considered the amended National Tariff policy

which has provided a revised CSS formula. In addition, the Nigam submits that once the study for carrying out voltage wise CoS is accomplished, the findings related to the same shall be furnished.

- In regard to audit of feeders with high losses, the Nigam submits that the audit of urban and rural feeders are on priority. Various steps have been taken by the Nigam to reduce the Losses with the specific focus on long term improvement in the power quality and reliability. Various strategies are being adopted in urban and rural areas based on their loss level. The steps taken for reduction of technical and commercial losses are as follows:-
    - High loss Feeder are being identified and the Sanitization work which is under progress and is being monitored regularly. All the Circle (Op) teams have been instructed to speed up in order to complete the pending work so that the loss level would be brought down to normative level.
    - Consumer Indexing for RAPDRP towns, non-RAPDRP towns, & rural areas is under progress which would help the Nigam to calculate the losses from the billing database and further pin point the losses incurred at DT level which will eventually help the Nigam to optimize its resources and making efforts towards effective loss reduction.
    - Feeder Sanitization Activities are carried out geographically as: (1) Urban Feeder Sanitization & (2) Mhara Gaon Jagmag Gaon Scheme for selected RDS feeders. In both the plans, Nigam has focused on the following four major activities:
    - Improving accurate reading of energy meters via replacement of Defective, faulty, Burnt, Glass broken, no display, inconsistent, electromechanical, and old version meters.
    - Minimizing occurrence of theft of energy via relocation of meters which are located inside the Consumer premises and are prone to theft of energy.
    - Preventive measures to eliminate direct theft of energy via replacing ACSR conductors, bare conductors present in theft prone areas with LT AB Cables to eliminate direct theft of energy.

- Releasing of New Connections: Unauthorized colonies, connections with direct theft, pending connections, un-electrified households are being provided a new connection to bring them in to billing net.

As the main focus of loss reduction is on urban feeders the number of urban feeders having loss more than 25% has been substantially reduced from 206 Nos. in the FY 15-16 to 170 Nos. in FY 16-17.

- In regard to the RE Subsidy, the True-up of subsidy is being done based on increase in Agriculture consumption which in turn in calculated based on the methodology and losses approved by the Commission. Moreover, the Nigam emphatically submits that the 16% loss levels on rural feeder used in computation are in line with methodology approved by The Commission.

II. ANNUAL REVENUE REQUIREMENT FOR FINANCIAL YEAR 2017-18:

1. Estimates for the sale of power to various categories of consumers.

Based on the past experience, the current method has proved to be a reasonably accurate and well accepted method for estimating the load, number of consumers and energy consumption. In light of the above, the Nigam submits that this methodology is adopted for projecting the sales of all the categories, apart from agriculture which follows a different methodology. The adopted methodology is mentioned is the petition. However for ease if reference, the excerpts are reproduced below:

"*In order to estimate the respective consumer category wise energy sales of DHBVNL for the FY 2016-17 and FY 2017-18, the Petitioner has relied upon the CAGR of previous year's data for connected load, sales and the resulting consumer category wise consumption per kW. Hence, after applying the projected load factor/ specific per kW consumption to the projected consumer category wise connected load, the consumer category wise sales for the FY 2016-17 have been arrived at. The methodology applied by the petitioner for estimating the metered sales is as under:-*

The category-wise connected load and energy sales for the FY 2010-11, FY 2011-12, FY 2012-13, FY 2013-14, FY 2014-15 & FY 2015-16 were considered.

The category wise connected load for the FY 2016-17 and FY 2017-18 is arrived at by multiplying full year category wise connected load for the FY 2015-16 with the respective year CAGR of historical data of connected load.

The category wise energy sales of the FY 2016-17 is calculated by multiplying

category wise connected load above for the FY 2016-17 with consumption per kW calculated for FY 2016-17 based on the analysed category wise actual consumption per kW pattern for past 3 years.

The category wise energy sales of the FY 2017-18 is calculated by multiplying category wise connected load above for the FY 2017-18 with consumption per kW calculated for FY 2017-18 based on the analysed category wise actual consumption per kW pattern for past 3 years.

Agriculture consumption for the FY 2016-17 and FY 2017-18 is calculated by assuming a growth rate of 5% in actual sales over the year FY 2015-16 reported by the feeder level data and as per the methodology adopted by the Commission in previous tariff orders."

2. Estimates for energy availability and cost of power purchase:

DHBVN states that there is huge diversity in consumer mix and consumption pattern under its jurisdiction. DHBVN further states that thus to meet the diverse demand it has tied up with generator for Long term PPAs. The long term PPAs with central generating station, state generating station and IPPs is as per the bidding guidelines of Ministry of Power and is duly approved by The Commission.

However in regard to the surplus power, it is submitted that the Power purchase is planned to meet the peak hour demand also factoring in the seasonal demands.

Thus during the non peak hours, a portion of tied up energy remains unconsumed. Moreover backing down of such quantum of energy is technically not feasible and thus leaves the utility with the option of selling it through inter-state sales at exchange price.

DHBVN reproduces the methodology adopted for projecting the estimates for FY 2016-17 and FY 2017-18.

For FY 2016-17 and FY 2017-18, Month Wise Energy availability at the state periphery in Mu has been projected based on the Allocated Share to Haryana of Central Generating Stations, State Generation and Independent Power Producers and other Stations.

The Energy Availability in Haryana is calculated based on the average PLF of FY 2015-16, FY 2014-15 and FY 2013-14, Share capacity of Haryana from Central Generating Station IPP. The energy availability to DHBVN is calculated by multiplying the total availability with the ratio of drawal of UHBVN and DHBVN.

"The Monthly energy sale is determined by distributing the same in the percentage of month of consumption of FY 2015-16. The energy sales hereby projected has been grossed up with the losses approved under UDAY scheme to reach at the normative energy required at the Discom periphery and then by the intrastate transmission losses to arrive at the normative energy required at the State Periphery."

3. Estimates for O&M Expenses

DHBVN submits that the O&M expenses are calculated as per the methodology/ procedure notified in the HERC MYT Regulations, 2012. In line to the regulations, considering the inflationary indices, an increase of 3.8% per annum has been factored into the calculation.

Moreover, it is submitted that the increase in O&M expenses is mainly on account of employee costs and terminal liabilities that are beyond the control of the Discoms. Hence the same needs to be approved even because the Commission has also agreed to consider the "Terminal liabilities with regard to employees on account of changes in pay scales or dearness allowance due to inflation" as an uncontrollable parameter vide the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012.

4. Estimates for Employee Expenses

DHBVN submits that the HERC MYT Regulations, 2012 as amended from time to time have clearly set out the methodology to calculate the O&M expenses for the Distribution and Retail supply business and the O&M Expenses are calculated accordingly. The Nigam further submits that the increase in projection from the earlier approved figures for FY 16-17 is on account of factoring in the impact of 7th pay commission.

5. Estimates for R&M Expenses

The Nigam submits that the Discom has projected R&M expenses, as per the formula defined regulation 57.3 of the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012.

(a) $R\&M_n = K * GFA * INDX_n / INDX_{n-1}$

Where,

- *'K' is a constant (expressed in %) governing the relationship between O&M costs and Gross Fixed Assets (GFA) for the nth year. The value of K will be 1.65% for DHBVN and UHBVN respectively for the entire control period;*
- *'GFA' is the average value of the gross fixed asset of the nth year.*
- *'$INDX_n$' means the inflation factor for the nth year as defined herein after.*

Furthermore, it is pertinent to mention that the repair and maintenance work has been increased in view of betterment of the operation of the Nigam and thus providing interrupted power supply and lower breakdown. Special power has been given to SDOs operation for two months with special emphasis on maintenance of transformers, to ensure minimal DT failure and smooth power supply during forthcoming summer. Nodal officers have been appointed to implement, monitor and report the maintenance of DTs.

6. Estimates for Capital expenditure

The Nigam submits that the basic need/objective of incurring the capital expenditure is to upgrade the ageing and weak distribution network to desirable standards so as to provide better network reliability and sustainable performance.

The Capital Expenditure also envisaged re-enforcement of the system to provide quality, security and availability of power supply to the consumers, to undertake system development to meet the load growth, achieving the targeted reduction in system losses, undertake automation and other improvement works to enhance customer service.

The Nigam would like to submit that the investment are in various plans and schemes such as AT&C loss reduction plan, Load Growth scheme, R-APDRP schemes and UDAY. The reduced Distribution Loss, higher collection efficiency, no of new connections released and time taken for release of new connections are some of the tangible benefits of capital expenditure which DHBVN has achieved.

7. Interest & Financing Charges

DHBVN submits that the provisions of UDAY have been taken into accounts in a well-though-out manner. It should be appreciated that the trajectory of Interest & financing charges since the implementation of UDAY is descending.

The major provisions of the UDAY scheme that have been taken into the account while preparing the previous and the current ARR are as follows:

- 75% of outstanding debt as on 30.09.2015 to be taken over in the form of equity / loan / Grant to DISCOMS.
- Take-over in year 1: 50%, Year 2: 25%.
- Take-over assumed at the end of second quarter from year 2.
- The Bonds have been issues at an average coupon rate of 8.19%

Moreover, DHBVN submits that the details regarding the existing working capital loans and other loans have been tabulated in detail in the filing with opening / closing balances and interest charged during the financial year.

8. Return on Equity

DHBVN submits that, the Nigam had provided authentic reasoning behind requesting The Commission to approve the return on equity for FY 2016-17 and FY 2017-18. It is submitted that RoE is the vital source of funding a portion of Capital Expenditure planned by the Utility in order to improve the system and to achieve further loss reduction. Disallowing RoE on the context of financial performance deprives the Discom of an indispensable source of internal accrual which is more important in view of the financially constrained position that makes it very difficult for it to borrow funds from the market to fund basic capital expenditure.

9. Projected Revenue Gap

In regard to the revenue surplus of Rs. 954.18 Crores for FY 2016-17, it is submitted that the Commission in the tariff order dated 01.08.2016 has stated that due to the fact that the power purchase cost in the present order was considered based on the data from April 2015 to January 2016 provided by the Discoms. Moreover, the Commission further states that the hike in landed cost of coal including freight, the fuel cost of power being procured by the Discoms is likely to go up. Hence, after accounting the same there may not remain any surplus revenue to be adjusted in the tariff. The Commission has further stated that doing so, at this stage, shall likely create upfront

FSA liability and adjusting the same at later stage may also require allowing carrying cost for the same.

III. IMPORTANT ISSUES NEEDING IMMEDIATE ATTENTION OF THE COMMISSION

9. Recovery of Fuel Surcharge Adjustment in an arbitrary manner

The Fuel Surcharge Adjustment (FSA) in the context of a Discom is essentially a power purchase cost adjustment. Every year the Commission in its order on the Revenue Requirement for the ensuing year estimates the expenditure for the ensuing year under different heads i.e. power purchase cost, employees' cost, administrative expenses, depreciation, interest and finance charges, etc. The tariff for the ensuing year is determined on the basis of the projected expenditure. There is a mechanism of true up for the various items of expenditure in the subsequent ARR, if the actual expenditure is more than the projected expenditure subject to norms of the HERC and prudence check.

The power purchase cost account for almost 80% of the total cost of the DISCOMs and undergoes lot of variation during the year. Waiting for the true up on an annual basis would lead to financial hardship to the DISCOMs as the bills of the generators have to be paid on a monthly / bimonthly cycle. An increase in the power purchase cost for the DISCOMs beyond the approved cost for a year results in a FSA which has to be recovered as per HERC regulations.

Conceptually, FSA in respect of power purchase arises due to any one or more or a combination of the following reasons:-

i. Higher quantum of power purchase as compared to quantum allowed by HERC.
ii. Higher per unit cost of power purchase from various sources as compared to cost allowed by HERC.
iii. Change in the power purchase mix as compared to that allowed by HERC.

Generally, FSA arises as a consequence of combination of above three factors for which the FSA claim is allowed by HERC for recovery from the consumers. FSA is, in fact, the difference in the actual cost of power purchase (calculated as per the norms) and the power purchase cost allowed by the HERC in the ARR / Tariff order.

The Electricity Act 2003 under section 62 provides:

"62. (1) The Appropriate Commission shall determine the tariff in accordance with provisions of this Act for –

(4) No tariff or part of any tariff may ordinarily be amended more frequently than once in any financial year, except in respect of any changes expressly permitted under the terms of any fuel surcharge formula as may be specified."

The National Tariff Policy provides:

"8.2 Framework for revenue requirements and costs

8.2.1 The following aspects would need to be considered in determining tariffs:

(1) All power purchase costs need to be considered legitimate unless it is established that the merit order principle has been violated or power has been purchased at unreasonable rates. …

Actual level of retail sales should be grossed up by normative level of T&D losses as indicated in MYT trajectory for allowing power purchase cost subject to justifiable power purchase mix variation (for example, more energy may be purchased from thermal generation in the event of poor rainfall) and fuel surcharge adjustment as per regulations of the SERC."

Earlier the FSA was levied on an annual basis or more but the present HERC regulations (notified in December 2012) has allowed the recovery of FSA from the consumers automatically by the DISCOMs on a quarterly basis as per the formula laid down by the HERC.

In exercise of the powers conferred upon Haryana Electricity Regulatory Commission under Section 181 (zd) and in lines with the Clause 8 of National Tariff Policy, Haryana Electricity Regulatory Commission (HERC) has notified HERC (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012.

Regulation 66 of the ibid MYT Regulations relating to Fuel Surcharge Adjustment is reproduced as under:-

"66. FUEL AND POWER PURCHASE COST SURCHARGE ADJUSTMENT (FSA)

66.1 The distribution licensees shall recover FSA amount on account of increase in fuel and power purchase costs from the consumers on a quarterly basis so as to ensure that FSA accrued in a quarter is recovered in the following quarter without going through the regulatory process i.e. FSA for the quarter "July to September" is recovered in the following quarter "October to December".

66.2 FSA shall be calculated only in respect of approved power purchase volume including short term power purchase cost, if any, for the relevant year from all approved sources. Drawl of power under UI mechanism, if any, shall be allowed only when it is not in violation of grid discipline and shall be subject to a price cap of average revenue realization from all consumer categories for that year.

Average revenue realization = (Total revenue assessed for electricity supply in Rs + Government Subsidy in Rs) / Total sales in Units.

66.3 For the purpose of recovery of FSA, power purchase cost shall include all invoices raised by the approved suppliers of power and credits received by the distribution licensees during the quarter irrespective of the period to which these pertain for any change in cost in accordance with tariff approved by any regulator/ government agency mentioned in regulation 59.4. This shall include arrears/refunds, if any, not settled earlier. In case data of the last month in a quarter is not available for calculating FSA to be levied in the following quarter, the licensee shall use an estimate based on available data of the first two months of the quarter. On availability of the actual figures, the difference on this account shall form part of FSA of the subsequent quarter. If the actual data for any quarter is not made available by the licensee before the end of the following quarter for this adjustment, the FSA finally allowed for that quarter based on actual figures supplied after the prescribed date shall be limited to the earlier estimated amount or the amount based on the actual figures, whichever is lower.

66.4 In case of negative FSA, the credit shall be given to the consumers by setting off the minus figure against the positive figure of FSA being charged from the consumers. In other words, credit of FSA shall be given only against FSA being charged so that the base tariff determined by the Commission remains unchanged.

66.5 Only the allowed percentage of transmission and distribution losses for the relevant year as per the approved ARR shall be taken into account for working out FSA.

66.6 The amount of FSA shall be recovered by each distribution licensee by charging a uniform FSA (per kWh) across all consumer categories in his area of license.

66.7 For moderation purposes, the recovery of per unit FSA shall be limited to 10% of the approved per unit 'average power purchase cost' or such other ceiling as may be stipulated by the Commission from time to time. For calculating FSA, variations in quarterly purchase volume from an approved source are allowed subject to an overall ceiling of annual approved volume from that source. In case a portion of the FSA for any quarter is not recovered due to the ceiling of 10%, the under recovered amount shall be added to the FSA for the next quarter.

66.8 Per unit rate of FSA (paisa/kWh) shall be worked out after rounding off to the nearest paisa;

66.9 The distribution licensee shall submit details relating to FSA recovery to the Commission for each quarter in the following format by the end of the following quarter.

(i)	*Approved power purchase volume from approved sources (MU)*
(ii)	*Approved power purchase cost (Rs. million)*
(iii)	*Actual power purchase volume (MU)*
(iv)	*Power purchased (MU) from sources not covered under regulation 66.2 giving source wise details and in case of UI the frequency at which UI drawls were made. (disallowed power purchase)*
(v)	*Actual cost of power purchase from all sources except (iv) (Rs. million)*
(vi)	*Actual cost of disallowed power purchase relating to (iv)(Rs. million)*
(vii)	*Total FSA estimated to be recovered for the quarter(Rs. million)*
(viii)	*FSA per unit (Rs/kWh)being recovered during the following quarter*
(ix)	*Actual FSA recovered/estimated to be recovered out of estimated FSA till the end of the following quarter (Rs. million)*
(x)	*Under/ over recovered FSA (vii-ix) (Rs. million)*
(xi)	*Approved sales (Consumer category wise / month wise) for the quarter (MU)*
(xii)	*Actual sales (Consumer category wise / month wise) for the quarter (MU)*

(xiii)	*Estimated sales, consumer category wise, for the following quarter (MU)*

Note:

1. *All the source-wise details should be supported with requisite documentary evidence / invoices raised by the generators / suppliers of the power.*
2. *Actual sales to AP consumers are to be calculated in accordance with the methodology approved by the Commission in the ARR for the relevant year.*

66.10 FSA (Rs/kWh) shall be worked out as per the following formula:

$$\text{Total FSA (Rs million)} = PC + I_{nt} + A_{dJst}\,Q + (A_{dJst}A/4)$$

$$\text{FSA (Rs / kWh)} = \{PC + Int + AdJst\ Q + (AdJstA/4)\} \div PS$$

Where

- *PC = {(Actual average power purchase cost (Rs/kWh) for the quarter) - (Average power purchase cost (Rs/KWh) approved by the Commission for the relevant year)} X PP*
- *PP = Total volume of power purchase during the quarter worked out based on total volume of powers sold to all the consumer categories grossed up by approved T&D loss. Sales to AP consumers are to be worked out in accordance with the methodology approved by the Commission in the ARR for the relevant year (MU).*
- *PS = Estimated sales volume for the following quarter with AP sales as approved by the Commission in the ARR for the relevant year (MU).*
- *Actual average power purchase cost (Rs./KWh) = (total cost of power purchased during the quarter from approved sources and UI as per regulation 66.2 in Rs million) / (total volume of power purchased in the quarter from approved sources and UI in MU) as per regulation 66.2)*
- *Int = Additional working capital cost allowed on account of FSA amount to be worked out as under:*
- *I_{nt} = {(total FSA/12) X (interest rate allowed for calculation of working capital in the ARR of the current financial year)} in Rs million.*
- *AdJst Q = Under/over recovered FSA of the previous quarter in accordance with regulation 66.3 and 66.7 in Rs million.*

- *AdJstA = Annual adjustment amount based on truing up of the FSA of the previous year by the Commission in Rs million.*

66.11 The licensee shall ensure that the Actual/ estimated FSA arising in a quarter is recovered in the following quarter. In case the licensee does not ensure levy of FSA based on the methodology given herein, the licensee shall have no claim to recover the FSA from the consumers in any manner in any subsequent period except in accordance with regulation 66(3) and 66(7). The unrecovered FSA for the previous financial year, details of which are supplied to the Commission by the distribution licensee, may either form part of power purchase cost for the next financial year or may be allowed to be recovered as annual adjustment amount in the quarterly recovery of FSA in the next financial year as the Commission may decide.

66.12 In case Government of Haryana decides to provide subsidy on account of FSA to a particular consumer category, the amount of subsidy equivalent to the FSA recoverable from the concerned consumer category, shall be deposited in advance by the Govt. Otherwise the recovery shall be affected from the consumer through electricity bills. It shall be the responsibility of the distribution licensees to seek prior approval of the State Government in this regard and maintain appropriate record of the same."

In line with the ibid Regulation of HERC, the Distribution Licensees calculates and recover FSA amount on account of increase in fuel and power purchase costs from the consumers on a quarterly basis so as to ensure that FSA accrued in a quarter is recovered in the following quarter without going through the regulatory process.

Moreover, the Nigam further submits that through Order dated 03.03.2017, the Commission, orders that the recovery of these FSA's shall continue at the rate determined above till such time i.e. 65 paise per unit from 01.04.2017 to 30.06.2017 and @ 37 paise per unit thereafter till the total amount as determined in the present Order is fully recovered. The same is being implemented in DHBVN through sales circular D14-2017 dated 28.03.2017

In regard to the FSA of 17 paisa per unit, it is mentioned that the recovery @ 17 paisa per unit has been adjusted by the Commission while calculating the outstanding FSA in its Order dated 19.03.2015.

10. Need for reduction of cross subsidy surcharge on open access power

As per National Tariff Policy (NTP), the Discom can levy cross subsidy up to a limit of +/-20% of the average cost of supply. Furthermore the decision regarding the same is taken by the Commission; also the cross subsidy charges applied are within the limits as defined under NTP. Further, as per HERC tariff order for FY 2015-16, HERC has worked out the cross-subsidy surcharge based on the voltage wise calculation of CoS by apportioning the power purchase cost at different voltage levels taking into account the distribution losses at the relevant voltage level and the upstream system, as suggested by the Hon'ble Appellate Tribunal for Electricity. For HT industry the Commission has computed CoS and average revenue realization as 6.27 Rs./kW and 7.84 Rs./kW respectively, henceforth the Cross Subsidy Surcharge (Rs./kWh) has been calculated (7.84-6.27) i.e. 1.57 Rs./kWh which is within the limit of +/-20% of the average cost of supply as per NTP. Further it is submitted that determination of tariff is prerogative of The Commission and the Commission determined tariff after prudence check of Discom submission.

11. Need for reduction/doing away with the levy of Additional Surcharge:

In accordance with the provisions of the Electricity Act 2003, the distribution licensees have an obligation to supply power to all the consumers under the respective areas of supply; and correspondingly they have to enter into long term agreements for purchase power from various generating stations. As such, when these embedded consumers draw power from elsewhere apart from the licensee under open access, the fixed cost of the supply taken by these consumers from elsewhere is still payable by the licensee, making it a stranded capacity for the distribution licensee.

It is submitted that the additional surcharge is payable for the stranded capacity of the distribution licensee. In the event of the open access consumers moving out of the system of the distribution licensee, the distribution licensee has to bear stranding of assets which causes financial loss to the distribution licensees and the same needs to be compensated by way of additional surcharge, as allowed by the Commission vide MYT tariff order dated 29.5.2014.

The Commission vide order dated 14th December, 2016 has allowed an additional surcharge of Rs. 0.87 per unit.

12. Need for introduction of TOD tariff and allow lower tariff rates in night hours:

DHBVN submits that in order to utilize the surplus power available during the night hours, the Nigam has introduced concessional tariff of Rs 6 per kWh (against current landed cost of Rs 7.89 per kWh) for HT industrial consumers on the excess drawl in the month during the night hours (22:00 Hrs to 04:00 Hrs) over and above their normal consumption during the corresponding month of preceding year. The Scheme has been introduced on Pilot basis and was initially in operation till 31st March, 2017. Currently, a petition has been filed before the Commission proposing that the scheme may be extended till 30th Sep 2017.

13. Need for treating the two State Power Distribution Utilities as independent Companies:

DHBVN submits that as per the current practice, the Commission determines tariff for the State. DHBVN is not conferred with the power to decide on this subject.

14. Need for reduction in electricity tariff for industrial consumers:

It is submitted that the tariff of different states cannot be compared vis-à-vis tariff of other states due to difference in power purchase mix, loss levels, Consumer Mix and thereby the Cost of Supply; the comparison of tariff in various states should be judged against respective average power purchase cost as the tariff rationalization is based on the overall approved annual revenue requirement of the DISCOMs, out of which around 80% corresponds to the net power purchase cost. The Commission has a two-sided responsibility to protect the financial interests of the distribution licensees and to balance the interests of various stakeholders. The Tariff for a particular consumer category is determined by the Commission on the basis of the Annual Revenue Requirement approved for a particular year. The vis-à-vis tariff comparison of Haryana and the neighboring states are mentioned below:

Tariff rates (with FSA) per unit to consumer (Rs./KWh)		
HT Industry		
Name of the States	**FINANCIAL YEAR**	**TARIFF/UNIT**
Delhi (Large Industrial Supply)	2015-16	10.01
Haryana	2016-17	8.51
Punjab (LIP)	2016-17	7.97
Rajasthan	2015-16	8.31

UP	2016-17	8.60
LT Industry		
Name of the States	**FINANCIAL YEAR**	**TARIFF/UNIT**
Delhi (Upto 10 KW)	2015-16	10.31
Haryana (Upto 10 KW)	2016-17	8.00
Punjab (Small Industry)	2016-17	6.51
Rajasthan	2015-16	7.25
UP	2016-17	8.83
LT Industry		
Name of the States	**FINANCIAL YEAR**	**TARIFF/UNIT**
Delhi (10 KW to 20 KW)	2015-16	9.64
Haryana (10 KW to 20 KW)	2016-17	8.33
Punjab (Small Industry)	2016-17	6.51
Rajasthan	2015-16	7.25
UP	2016-17	8.83
LT Industry		
Name of the States	**FINANCIAL YEAR**	**TARIFF/UNIT**
Delhi (20 KW to 50 KW)	2015-16	9.64
Haryana (20KW to 50 KW)	2016-17	8.41
Punjab (medium Industry)	2016-17	7.29
Rajasthan	2015-16	7.25
UP	2016-17	8.83

However, the powers of the same are conferred upon the Commission and the related matter can be taken up with the Commission.

15. State Govt. announcement to reduce FSA.

DHBVN submits that HERC issued new order on FSA on 03.03.17, thus lowering the existing FSA rates. As per the ibid order, the recovery of these FSA's shall continue at the rate determined above till such time i.e. 65 paise per unit from 01.04.2017 to 30.06.2017 and @ 37 paise per unit thereafter till the total amount as determined in the present Order is fully recovered.

16. Request for realigning the Domestic Tariff.

DHBVN is not authorized to decide the tariff category of consumers based on their usage of electricity. The powers of the same are conferred upon the Commission and the related matter can be taken up with the Commission.

Commission's View

The Commission has taken note of the objections filed by M/s JSL, Hisar as well as DHBVNL's reply thereto. It needs to be noted that this Commission is also bound by its own Regulations. Hence, true-up of the ARR is done strictly as per the provisions of

the Regulations occupying the field and the same is confined to the costs classified as "uncontrollable" that too after applying prudence check. The major cost component of the Distribution and Retail Supply business is the quantum and cost of power. The quantum and cost of power for a given year is determined by the Commission on a projected basis. The actual cost depends on the actual generation of the power plants / sources tied up on a long basis (PPA) and the tariff determined by the CERC in the case of Central Generating Stations, determined by this Commission under section 62 of the Act or adopted under section 63 of the Act. Thus, due to change in mix of power available on actual basis and tariff thereto, particularly fuel cost, the cost of power actually incurred may be at variance. However, any such cost incurred due to higher quantum of power purchase to meet the actual consumer category wise sales due to higher distribution losses than that approved by the Commission is not passed on to the electricity consumers. As far as FSA is concerned, it is also dealt with in accordance with the Regulations in vogue. Hence, after taking into account the FSA amount quantified by the Commission and the amount that has been actually recovered by the Discoms, this Commission vide Order dated 3.03.2017 has substantial reduced the rate of FSA recovery i.e. 65 Paise / kWh up to 30.06.2017 and 37 Paise / kWh thereafter. Regarding FSA recovery of 17 Paise, the Commission observes that while passing FSA Order dated 19.03.2015 the Commission had taken into consideration all the FSAs recovered and going forward quantified the balance FSA to be recovered by the Discoms.

Additionally, the Commission has taken note of other issues raised by the Intervener w.r.t Capex, RoE, O&M etc. these issues have been dealt by the Commission in line with the Regulations in vogue at the relevant paragraphs of the present Order. As far as treating the two Discoms as independent companies it is observed that the two Discoms are separate distribution licensee, however, the tariffs for both the Discoms have been kept the same to balance the inherent consumer mix of the Discoms and the subsidy paid by the State Government has been apportioned commensurate to the respective revenue gap. Even otherwise the practice followed by most of the SERCs is to have a uniform tariff by introducing the differential in the bulk supply rate while in Haryana the PPAs have been allocated between the two Discoms in equal proportion.

2.3.3 Objections Filed on DHBVNL ARR petition for FY 2017-18 by Faridabad Industries Association.

1. Distribution Losses

At 3.5.1 of the petition for FY 2016-17 and FY 2017-18, DHBVNL has considered distribution loss of 21.70% and 17.94% for FY 2016-17 and FY 2017-18 respectively. The following extracts of 3.5 of the HERC order dated 1 August 2016, are given regarding loss trajectory as approved by the Commission:

"The Govt. of India, Ministry of Power vide letter dated 27.04.2015 has approved the following revised AT&C loss trajectory for the two licensees:

Revised AT&C loss trajectory approved by MOP, GOI

Distribution Licensee	2013-14	2014-15	2015-16	2016-17
DHBVNL	38.25	23.96	21.35	18.74
UHBVNL	33.78	31.29	27.88	24.48
Haryana State	36.26	27.55	24.56	21.55

Regulation 57.2 of Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012 specifies the following norms for collection efficiency for the distribution licensees.

Norms for collection efficiency specified by the Commission

Distribution Licensee	*2013-14*	*2014-15*	*2015-16*	*2016-17*
DHBVNL	*98%*	*98.5%*	*99%*	*99%*
UHBVNL	*98%*	*98.5%*	*99%*	*99%*

It has further been specified that any over achievement or under achievement in respect of collection efficiency shall be subject to incentive and penalty framework as specified in Regulation 12."

As can be seen, the Commission had approved AT & C loss levels of 18.74 % for DHBVN and accordingly distribution loss level of 17.91% considering the approved collection efficiency of 99% for FY 2016-17. The Discom has indicated a higher figure for Distribution loss at 21.70 %, which must not be accepted by the Commission as it will be against the tariff regulations 2012, Commission's own orders dated 7 May 2015 and 1 August 2016 and against the losses approved by Ministry of Power, Government of India. Similarly for FY 2017-18, the Discom has presumed a figure of distribution loss of 17.94% which is not acceptable as it is higher than the previous year approved losses of 17.91%, which completely violates the spirit of efficiency and improvement in power sector and against the legal provisions of tariff regulations and the Commission's own previous orders.

For FY2017-18, the Commission has come out with Amendment No 1 dated 17 November 2016 to the tariff regulations 2012 extending the control period to 2017-18, as given below:-

"Regulation No. HERC/ 26 / 2012 / 1st Amendment / 2016-

1. Short title and commencement:

1.1 These Regulations may be called the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012 (1st Amendment) Regulations, 2016.

1.2 These Regulations shall come into force w.e.f. the date of publication in the Haryana Government Gazette.

1.3 These Regulations shall extend to the whole of the State of Haryana. 2. Amendment to Regulation 3.16 The definition and interpretation under Regulation 3(3.16) shall be replaced by the following paragraph, namely:- "Control Period" means a multi-year tariff period fixed by the Commission from time to time. The first control period shall be from 1st April 2014 to 31st March 2018."

All the principles of tariff fixation as laid down in Tariff Regulations 2012 shall be applicable for the projection and determination of ARR for the FY 2017-18 also. The Commission, must therefore, set justifiable targets for AT&C Loss, distribution loss and collection efficiency and these can not be worse that the targets for FY 2016-17 under any circumstances as per the provisions of Tariff Regulations 2012 read with Amendment No 1.

Commission is therefore, requested to approve the energy balance considering only the approved levels of distribution losses for the revised estimates of 2016-17 and the fresh estimates for 2017-18 for energy sales and power purchase must be laid down keeping better targets for AT&C Losses, distribution losses and collection efficiency which in any case cannot be less than the targets for 2016-17. The assumptions made by DHBVN against these controllable parameters must therefore, be rejected by the Commission and should not form basis for the projection of ARR for FY 2017-18.

2. Employee Expenses

In Table 8 on page 29 of its tariff petition for FY 2016-17 and 2017-18, DHBVNL has revised the employees expenses for 2016-17 from the approved figures of Rs

629.03 cr to Rs 786.03 Cr and projected a figure of Rs 815 Cr for the FY 2017-18. It has indicated actual employee costs as Rs 645.77 Cr for the year FY 2015-16 as per Table 8. The relevant extracts from the tariff regulations on employee costs are given below:-

> ***(b) EMPn (excluding terminal liabilities) + A&Gn = (EMPn-1+A&Gn1)*(INDXn/ INDXn-1)***
>
> *Where,*
>
> *INDXn – Inflation Factor to be used for indexing the Employee Cost and A&G cost. This will be a combination of the Consumer Price Index (CPI) and the Wholesale Price Index (WPI) for immediately preceding year and shall be calculated as under:*
>
> ***INDXn = 0.55*CPIn +0.45*WPIn.***

Note 1: *For the purpose of estimation, the same INDXn value shall be used for all years of the control period. However, the Commission shall consider the actual values of the INDXn at the end of each year during the annual performance review exercise and true-up the employee cost and A&G expenses on account of this variation.*

Note 2: *Any variation in employee cost and A&G cost on account of reasons beyond variation in INDXn shall be subject to the incentive and penalty framework specified in regulation 12."*

Employees expenses are the controllable expenses and as can be seen from above, any variation in employee costs from the approved figures is allowed only to the extent of variation in inflation factor.

Further as per table 3.32 of the Commission's order dated 1 August 2016, the approved employee costs for FY 2014-15 is Rs 599.07. The employee costs for FY 2015-16 as shown by DHBVN in Table 8 of its petition is contested as per comments provided on the true up petition of the Discom on the ground that Discom has not followed the laid down principles of the tariff regulations and no calculation and methodology has been depicted by it to arrive at such costs.

DISCOM needs to work out the inflation factor for the relevant year and apply it scientifically on the approved costs of 2014-15 to arrive at the actual expenses for the year 2015-16, which would require due diligence and scrutiny from the Commission before approving the employee costs for FY 2015-16.

As there is no justification provided for increase in these employee expenses, the increase may not be considered by Commission and the approved figures of

employee expenses as given in Commission's order dated 1 August 2016, may please be taken into account for arriving at the revised estimates of ARR for FY 2016-17.

Further, for projecting the employee cost of Rs 815.88 Cr for FY 2017-18, the Discom has applied an inflation index of 3.8 % on the Revised Estimates for FY2016-17, i.e. Rs 786.03 cr, which itself is disputed as given in the above para of our submissions. Further the new Amendment No 1 dated 17 November 2016 to tariff regulations 2012 provides as below:-

> *"2. Amendment to Regulation 3.16 The definition and interpretation under Regulation 3(3.16) shall be replaced by the following paragraph, namely:- "Control Period" means a multi-year tariff period fixed by the Commission from time to time. The first control period shall be from 1st April 2014 to 31st March 2018. Provided that where certain norms / benchmarks are required to be computed using 'baseline values' and the 'base year' has been defined as the financial year immediately preceding the first year of the control period. In all such cases the 'base year, for projecting normative values for annual determination of the ARR/Tariff petition(s) for the FY 2017-18 shall be the FY 2015-16 based on the respective audited accounts of the licensees and the generating company. Provided that in the case of HVPNL/Discoms the O&M expenses for the FY 2017-18 shall be based on the audited accounts for the FY 2015-16 subject to prudence check."*

In line with these Regulations, the employees expenses for FY 2017-18 shall be projected based on the audited accounts of 2015-16. DISCOM must therefore, rework their projection for FY 2017-18 after taking into consideration the base values, the inflation factor and the efficiency factor.

3. R&M Expenses

In Table 9 on page 30 of its tariff petition for FY 2016-17 and 2017-18, DHBVNL has asked for R&M expenses of Rs 109.99 Cr for 2016-17 and projected a figure of Rs 114.16 Cr for the FY 2017-18. Referring to the true up petition of DHBVNL, DHBVN has incurred R & M expenses of only Rs 35.64 cr against the approved figure of Rs 98.07 cr for FY 2015-16 by the Commission in its tariff order dated 7 May 2015.

DHBVN has given the following for the R&M expenses:

> *"3.11.2 The petitioner has projected R&M expenses for the FY 2016-17, on the actual average Gross Fixed Assets of DHBVNL for FY 2015-16 escalated with the inflation factor computed as per the methodology specifies by HERC MYT Tariff Regulations, 2012 as tabulated below":*

DHBVN has not provided any calculation for the working of R&M Expenses as Rs 109 Cr for 2016-17, though they claimed it as per average GFA and the corresponding inflation factor. Historically they have been spending much less on R&M and during FY 2015-16, it spent only Rs 35.64 cr against the approved figure of Rs 98.07 cr. Even taking an inflation factor of 3.8% as considered by the Discom, the estimated R & M expenses for FY 2016-17 and FY 2017-18 should come out to be about Rs 36.99 cr and Rs 38.40 cr respectively.

The Commission is therefore, requested to re estimate and re-approve the R& M expenses for FY 2016-17 and FY 2017-18 taking into account the actual R & M expenses of FY 2015-16 as given in the true up petition.

4. A & G expenses

At 3.12 of the petition, DISCOM has requested for a revised A & G expenses of Rs 74.87 cr and Rs 77.72 cr for FY 2016-17 and FY 2017-18 respectively against the already approved figures of Rs 73.86 cr for FY 2016-17. They have arrived at this estimate by taking the actual A & G expenses of Rs 72.13 cr for FY 2015-16 and applying inflation factor of 3.8 %.

However, as per our submissions on true up petition for FY 2015-16, Commission needs to approve only Rs 53.52 cr (after capitalization) as the A & G expenses for FY 2015-16, which was approved by the Commission in its tariff order 7 May 2015.

Taking an inflation factor of 3.8% as considered by the Discom, the estimated A & G expenses for FY 2016-17 and FY 2017-18 should come out to be about Rs 55.55 cr and Rs 57.66 cr respectively

The Commission is therefore, requested not to allow any increase in the revised projection of A &G expenses for FY 2016-17 and FY 2017-18 than those given above.

5. Non Tariff Income

As per 3.19 and Table 21 of the petition, the DHBVNL has requested for Non Tariff Income of Rs 235.68 cr and Rs. 247.47 cr for FY 2016-17 and FY 2017-18 respectively. However, the actual Non tariff Income of DHBVNL for FY 2015-16 is Rs 224.46 cr as per its own true up petition which did not include Rs 79.08 cr as the income due to late payment surcharge. As Late payment surcharge is also legitimate NTI, taking it into account, total NTI for FY 2015-16 comes out to be Rs 303.54 Cr.

Hence it is likely to be much more than the Discom estimates as given above for 2016-17 and 2017-18.

Commission is therefore, requested to re-estimate the non tariff income figures of DHBVN for FY 2016-17 and FY 2017-18 taking into consideration the actual figures for FY 2015-16.

Further at 3.19.2 of its petition, DISCOM has indicated that the delayed payment surcharge received from consumers may not be treated as income of the DISCOM and should not be part of non tariff income. MYT regulations however, clearly stipulate that late payment surcharge received from consumers is to be treated as part of non tariff income only and is to be deducted from ARR. Also DISCOM gets benefit of the additional revenue received on account of late payment surcharge as the additional revenue is taken into consideration while calculating AT&C loss and collection efficiency. The contention of DISCOM, therefore not to consider LPSC as part of non tariff income, is not only illogical, devoid of merit but also against the legal provisions as given in tariff regulations 2012.

The Commission must therefore consider LPSC as a part of non tariff income only in ARR.

6. Power purchase costs

At 3.3 of its petition, DHBVNL has revised their estimates of power purchase quantum and cost for various years of the control period as can be seen from Table 3 of the petition. Table 6 on energy balance for Haryana which is produced below, indicates that DHBVNL has considered distribution loss of 21.70 % and 17.94 % for FY 2016-17 and FY 2017-18 respectively which are higher than the Commission approved figure for FY 2016-17 as given in tariff order dated 1st Aug 2016.

Table 6: Energy Balance for Haryana FY 2016-17 and FY 2017-18

Energy Balance	Units	FY 2016-17	FY 2017-18
Power Purchase at State Periphery	Mus	28,880.77	29,704.43
Energy Sales to the Consumers	Mus	19,596.00	20,839.00
T&D loss	%age	21.70%	17.94%
Energy Sales at Discom Periphery	Mus	25,025.85	25,394.65
Intra- State Transmission Loss	%age	2.46%	2.46%
Energy Sales at State Periphery	Mus	25,657.01	26,035.11
Deficit met through Banking	Mus	382.52	313.53
Surplus	Mus	2,975.64	3,420.68

Further referring to Commission's order dated 1 Aug 2016, the following targets for AT&C and distribution losses were laid down:

If the Commission's approved figures of distribution losses are taken into account for calculating energy balance, the quantum of energy projected by the Discom and the power purchase costs associated with this would be much less than estimated by the Discom.

Revised AT&C loss trajectory approved by MOP, GOI

Distribution Licensee	2013-14	2014-15	2015-16	2016-17
DHBVNL	38.25	23.96	21.35	18.74
UHBVNL	33.78	31.29	27.88	24.48
Haryana State	36.26	27.55	24.56	21.55

Regulation 57.2 of Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012 specifies the following norms for collection efficiency for the distribution licensees.

Norms for collection efficiency specified by the Commission

Distribution Licensee	2013-14	2014-15	2015-16	2016-17
DHBVNL	98%	98.5%	99%	99%
UHBVNL	98%	98.5%	99%	99%

It has further been specified that any over achievement or under achievement in respect of collection efficiency shall be subject to incentive and penalty framework as specified in Regulation 12."

As can be seen, the Commission had approved AT & C loss levels of 18.74 % for DHBVN and accordingly distribution loss level of 17.91% considering the approved collection efficiency of 99% for FY 2016-17. Commission is therefore, requested to take into account only the approved distribution losses of 17.91 % for FY 2016-17 to consider the power purchase quantum and its associated cost and not 21.70% as considered by DISCOM in its tariff petition.

Further the DISCOM has considered a loss target of 17.94 % for FY 2017-18 which is higher than target of 17.91 % set by the Commission for FY 2016-17 which is further deterioration over 2016-17 and is totally unacceptable and against the provisions of tariff regulation 2012 , various orders of the Commission, National Tariff Policy and Indian Electricity Act 2003. The distribution loss for the year 2017-18 should be arrived at by considering further reduction in the 2016-17 loss distribution figures

and the power purchase, energy balance and the associated costs can be arrived at only at the reduced figures for FY 2017-18.

7. Return on Equity

In its petition for FY 2016-17 and FY 2017-18, DHBVNL has also asked for return on equity of Rs 215.88 cr and Rs 242.42 cr for FY 2016-17 and 2017-18 respectively as given below:-

"***3.16 Return on Equity***

3.16.1 As per Regulation 20.1 of HERC (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012; the rate of return on equity shall be decided on the basis of overall performance subject to a ceiling of 14% provided that the ROE shall not be less than the net amount of incentive and penalty.

3.16.2 The computation of return on equity for FY 2016-17 and FY 2017-18 is tabulated below:-

Table 15: Return on Equity for FY 2016-17 & FY 2017-18 Rs. Cr.

Particulars	Approved	Estimated (FY 2016-17)	Projected (FY 2017-18)
Opening Equity	1439.12	1,472.36	1,611.58
addition	33.24	139.22	240
Closing Equity	1472.36	1,611.58	1,851.58
Average	1455.74	1,541.97	1,731.58
Rate of RoE	14%	14%	14%
Total RoE	**203.80**	**215.88**	**242.42**

3.16.3 DHBVN in its APR and ARR Tariff petition submits that RoE is the vital source of funding a portion of Capital Expenditure planned by the Utility in order to improve the system and to achieve further loss reduction. Disallowing RoE on the context of financial performance deprives the Discom of an indispensable source of internal accrual which is more important in view of the financially constrained position that makes it very difficult for it to borrow funds from the market to fund basic capital expenditure.

3.16.4 The petitioner requests The Commission to approve the computation of return on equity for FY 2016-17 and FY 2017-18, as tabulated above. "

However, Commission has approved zero ROE in its earlier orders and also in Tariff order dated 1st August 2016.

The Commission has been consistently denying ROE to the licensee in the past on account of their poor performance and erosion of net worth due to accumulation of losses in its tariff orders. The relevant text from its earlier order are reproduced below:

"3.16 Return on Equity

The accumulated losses of the two distribution licensees i.e. UHBVNL and DHBVNL have completely eroded their net worth including equity capital deployed in the business. The Commission, on several occasions, has emphasized the need for recapitalization of the state owned distribution companies and infusion of fresh equity by the State Government over and above the equity component of the annual incremental capital expenditure to be undertaken by the distribution companies to modernize and augment the distribution system to meet the increasing load and consumer base of the power utilities as well as their obligations to meet the standard of performance specified by the Commission in order to better serve the electricity consumers in Haryana. However, no progress seems to have been made in this direction. The return on equity either comes from the profit earned from the business in the form of dividend or from the accumulated reserves and surplus. In the present case there is neither any profit nor reserves and surplus. Further due to accumulated losses the equity capital stands completely eroded.

In view of the above facts, the Commission does not consider it appropriate to allow any return on equity in the FY 2013-14, as in the past, to the distribution licensees."

Despite being denied return on equity in the previous tariff orders, the licensee has again asked for return on equity of Rs 215.88 cr and Rs 242.42 cr for FY 2016-17 and 2017-18 respectively without any significant improvement in its performance. It is extremely important to link the ROE with the improvement in efficiency of the licensee, failing which no ROE may be given to it. Passing on ROE without improvement in performance will put additional tariff burden on the consumers. Also regulation 20.1 of tariff regulations 2012 clearly stipulates that return on equity shall be decided by Commission on the basis of overall performance of the licensee, the extract are reproduced below :

" 20.1The rate of return on equity shall be decided by the Commission keeping in view the incentives and penalties and on the basis of overall performance subject to a ceiling of 14% provided that the ROE shall not be less than the net amount of incentive and penalty ."

The matter was thoroughly considered by the Commission in its MYT Order dated 29th May 2014, the relevant extract of which are placed below:

"Return on Equity (ROE):

The Commission is conscious of the fact that the MYT Regulations, 2012 provides for upto 14% return inclusive of MAT/ taxes, if any, on the equity capital deployed in the distribution and retail supply business. However, the Commission finds that the accumulated losses of the two distribution licensees

i.e. UHBVNL and DHBVNL have completely eroded their net worth including equity capital deployed in the business. The Commission, on several occasions, has emphasized the need for recapitalization of the state owned distribution companies and infusion of fresh equity by the State Government over and above the equity component of the annual incremental capital expenditure to be undertaken by the distribution companies to modernize and augment the distribution system to meet the increasing load and consumer base of the power utilities as well as their obligations to meet the standard of performance specified by the Commission in order to better serve the electricity consumers in Haryana. However, the Discoms have attempted to make good the accumulated losses HERC Order on ARR & Tariff of UHBVNL & DHBVNL for D&RS business under MYT framework for the control period FY2014- 15- FY 2016-17 through FRP which provides for takeover of 50% of the short – term liabilities by the State Govt. while servicing of the balance amount is to be done by the Discoms.

The return on equity either comes from the profit earned from the business in the form of dividend or from the accumulated reserves and surplus. In the present case there is neither any profit nor reserves and surplus. Thus ROE is neither available to the Discoms for ploughing back in the business thereby reducing capital expenditure related borrowings and interest cost thereto which is passed on to the electricity consumers of Haryana nor the same is available for appropriation as dividend payable to the equity holder i.e. in this case the State Government. Thus in effect any ROE that could have been allowed would be diverted to funding of losses.

In view of the above discussions, and the fact that there are large number of new connections pending release which would have taken care of about 300 MW of power i.e. the surplus which is being surrendered at a rate even lower than the average cost of power purchase by the Discoms leading to avoidable revenue loss. Further, the Discoms have been allowed the interest cost of Rs. 1000 Crore bonds issued by HVPNL on their behalf to fund the payables to HVPNL and HPGCL as well as the interest cost of the short term liabilities under FRP which the consumers have already paid for. Additionally, the Commission has also taken note of that the Discoms failed to achieve the distribution loss reduction trajectory set by the Commission and on the contrary re-stated the loss – levels on one plea or the other including sales, so far, attributed to discovery of 'ghost consumers' i.e. consumers who exists only on the books of the Discoms. In these circumstances, the Commission does not consider it appropriate to allow any return on equity in the FY 2014-15, to the distribution licensees and reiterates that the distribution / AT&C loss trajectory as per the FRP which has in principle approval of the Commission shall not be re-visited."

In view of the above, we request the Commission to take a judicious decision in the matter and disallow the RoE for FY 2016-17 and FY 2017-18 in consonance with its own earlier tariff orders and the provisions given in the tariff regulations.

8. Supply Voltage wise and consumer category wise distribution and AT&C losses:

As stipulated under regulation 57.1 (f) of HERC regulations 2012, the DISCOMs are required to submit the information on these losses to arrive at wheeling charges, open access charges and other important parameters like collection efficiency and AT&C losses category wise. However, despite repeated directives by the Commission and the clear legal provisions stipulated in the Regulations, both the licensees have not submitted computation of supply voltage wise and consumer category wise distribution and AT&C losses till date.

In the MYT Order dated 29th May 2014 also, the Commission had expressed serious concern on the issue and stated as follows:

> *"Both the licensees have not submitted the computation of supply voltage wise and consumer category wise distribution and AT&C losses, as required under Regulation 57.1 (f) of Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012."*

However, despite repeated directives from the Commission, the Discom has again failed to comply with its orders and the statutory provisions of the regulation.

In view of the repeated failure of the Discom to comply with the regulatory directive of the Commission and the continuous flouting of the legal provisions as enshrined in the Tariff regulations, Commission may consider taking a serious view of the matter including invoking section 142 of the Electricity Act.

9. Incentivization for industries for going Solar

(a) As per present orders, the Government is not providing any subsidy to industrial units for going Solar. The only relief presently available to the industry is an incentive of Rs. 0.25 Paise/unit of Solar Power generated and fed through net metering. We request that this incentive for the industry be increased to Rs. 1/unit at par with other stakeholders.

(b) Net metering presently is not permitted for industries drawing Power through OA. Since the thrust of the Government is to encourage Solar, we recommend that even such industries drawing partial power through OA should be permitted to install net metering to avail the incentive.

10. Fixed Charges

(a) The fixed charges levied on industrial consumers should be reduced to the extent of Solar plant installed and power consumed through the roof top Systems.

(b) The fixed charges presently being levied on all consumers should be levied every month based on the maximum Power consumed rather than Contract Demand.

11. Non-compliance to the directives of the Commission

a) Cost of Supply

The Tariff Regulations notified by this Commission casts statutory obligation on the Discoms to conduct CoS and submit the same for consideration of the Commission. However, the DHBVN has repeatedly failed to submit any tariff proposal backed by CoS.

b) AP Subsidy

The DHBVN has failed to submit the details of subsidy released by the State Government on a quarterly basis. As per earlier directions of the HERC, the Nigam was to take up the issue of direct transfer of RE subsidy to the eligible AP Consumers in their Aadhar linked bank accounts. This has not been done and DISCOM has merely stated that this issue falls under State government.

c) Replacement of defective Meters

The Commission has been insisting and giving instructions to the Discom for many years to replace the defective meters and had given the following directive:

> "In Commission's order dated 7th May, 2015, the following targets were assigned to the licensees for replacement of defective energy meters.
>
> a. Single phase meters: The number of defective energy meters should not exceed 10,000 at any time after December, 2015.
>
> b. Three phase meters: The number of defective energy meters should not exceed 500 at any time after December, 2015."

The reply of the Nigam is very vague and open ended. This point has been commented upon by the Commission for the last 10 years. Still the following meters are lying defective as per the submissions of DHBVN:

Single phase: 112321

Three phase: 52072

We strongly feel that unless the supply of meters outstrips the demand, this situation will continue. The Commission should ensure a time bound compliance from the discom as defective meters are a huge burden on the power system and its economics and concerted efforts should be made by the Discom to get it replaced in a time bound manner.

d) Reporting of Circle wise losses

The utilities are required to place on their website the circle wise losses suffered in the respective utilities along with the name (s) and designations(s) of the officers concerned working in the supervisory capacity. Such information should be updated periodically on quarterly basis. The information in respect of total losses incurred in a year should also be made public at the time of filing ARRs for information of the consumers. However, despite repeated directives by the Commission, utilities have failed to comply with such an important aspect which can go a long way in managing the acute problem of distribution losses.

e) Non replacement of Electro-mechanical Meters:

Commission in its order dated 07th May, 2015 on ARR petitions of the licensees for FY 2014-15, had directed to replace the Electro-mechanical meters by 31st March, 2016 by making all necessary arrangements. But as per progress report, the number of electro-mechanical meters have reduced only by about 77000 in a span of 9 months.

The licensee was directed to file, within 3 months, the detailed reasons for not complying with the directive of the Commission and with a warning that a failure to do so shall attract penal action as per the Electricity Act, 2003.

In its reply filed in the current ARR, the Discom has again shown the pending replacement of electromechanical meters both in rural and urban areas. This not only flouts the repeated directives of the Commission on the issue but also contravenes the legal provisions of tariff regulations and Electricity Act which prohibits use of electromechanical meters.

f) Issuance of bills and realization of payment thereof in urban areas

Commission had directed the Discom that it will be mandatory for consumers of all categories with a load of 20 KW and above to download their bills from the Discom's

website. However, Discom is still in the process of compiling data and has yet to ensure its implementation.

g) Directive on RPO Obligation

The Commission had directed the Discom to purchase renewable energy or RECs to meet the RPO targets set for the FY 2016-17 and also to make up for the shortfall of RPO compliance carried forward for the previous years, on actual basis. In view of Haryana Government's mandate to promote RE energy especially roof top solar and Waste to Energy, Discom was directed to meet the maximum RPO targets from these sources.

However, despite repeated directives from the Commission, the Discom is terribly short of purchase of renewable energy and meeting the RPO obligations.

h) Power drawl under UI Mechanism

The Discom was directed to manage its UI drawls more efficiently and prudently and the Commission had made it very clear that it will not approve the power purchase cost of such drawls at a rate higher than the average cost of power purchase, and any loss on account of this shall be borne by the Discom.

As can be seen from the data available from the power purchase for FY 2015-16, as submitted by DHBVN in its true up petition, DHBVN has drawn power under UI at an exorbitant rate of Rs 7.02 per unit which is much above the average power purchase price and is an offshoot of ill conceived planning and incompetency of the Discom. This kind of cost should not be allowed to be passed on to the consumers as already directed by the Commission.

It has been observed that the directives issued by Commission are not complied by DHBVN time and again. Directives are essential and integral part of the order issued by the Commission and any non-compliance should be viewed seriously by Commission. As there has been repeated flouting of the directives of the Commission by the DHBVN, Commission must take stringent view and may consider taking punitive action against the concerned official(s) by holding him personal guilty for non-compliance and may also consider imposing penalty by invoking section 142 of the Electricity Act 2003.

12. Standards of performance and reliability indices

As per HERC Regulations 2004 on standards of performance, clause 3.1 stipulates that these standards shall be the minimum standards of the service with reference to the quality, continuity and reliability of the services of distribution company. Further, as per clause 8.1 of these Regulations, every licensee shall furnish the information on these standards and reliability indices (refer clause 8.3) every year. However, no such information has been provided by the licensee.

Further as per schedule 1 of the guaranteed standards of the performance of these Regulations, the period of load shedding shall not exceed 4 hours per day continuously for 4 days and in the event of the failure by the licensee to do so, a penalty has been specified. Further, as per the overall standards of performance as given in schedule II, defective meters shall not exceed 1% of the metered installations as per these standards, though there are still about 1.64 lacs defective meters in the licensed area of the petitioner as mentioned by the Discom in its ARR Petition. In fact, most of these provisions are grossly and blatantly flouted by the licensee. No such compensation has been paid by the Utility against the non-compliance of these standards of the performance, even though there is a provision for automatic payment of compensation as per clause 7.2 of these Regulations.

13. New supply connections

As per Haryana Electricity Regulatory Commission (Duty to supply electricity on request, Power to recover expenditure incurred in providing supply & Power to require security) Regulations, 2005, it is the Duty of Licensee to supply electricity on request. As per clause 3.1 of these regulations, every distribution Licensee shall, on receipt of an application from the owner or occupier of any premises, give supply of electricity to such premises, within one month of receipt of the application, complete in all respects along with the non-refundable application processing fee. A large no of pending requests for new supply connections beyond the permissible time limit is clearly violative of the statutory provisions.

14. Penalty for contraventions

It has been observed that the licensee has not been complying with the various provisions of regulations, supply code, Electricity Act, Conditions of the License and directives issued by the Commission in the past. It has also been found flouting various provisions of applicable regulations and Act as can be seen from the tariff orders of the

Commission and by Discom's own admission in its ARR petition. Though there are provisions in the Act and the regulations, e.g**.** Sections 142 and 146 of the Act and other regulations in force provide for penal action against the licensee, no penal action is taken against the licensee. Also, Discom has been flouting almost all the provisions of supply code and various standards of performance, neither any compensation is given to the gullible consumers, nor any penal action is ever taken by the commission though, repeated warnings for taking penal actions have been issued by the Commission in vain in its tariff orders and otherwise.

As there has been repeated flouting of these provisions, Commission may take stringent view and may consider taking punitive action against the concerned official by holding him personal guilty for non-compliance and may also consider imposing penalty by invoking section 142 of the Electricity Act 2003.

15. Tariff philosophy

As per National tariff policy, cross subsidy should be reduced every year. Clause 8.3 on tariff policy provides as under:

"

1. In accordance with the National Electricity Policy, consumers below poverty line who consume below a specified level, say 30 units per month, may receive a special support through cross subsidy. Tariffs for such designated group of consumers will be at least 50% of the average cost of supply.
2. For achieving the objective that the tariff progressively reflects the cost of supply of electricity, the SERC would notify roadmap within six months with a target that latest by the end of year 2010-2011 tariffs are within ± 20 % of the average cost of supply. The road map would also have intermediate milestones, based on the approach of a gradual reduction in cross subsidy. For example if the average cost of service is Rs 3 per unit, at the end of year 2010- 2011 the tariff for the cross subsidized categories excluding those referred to in para 1 above should not be lower than Rs 2.40 per unit and that for any of the cross subsidizing categories should not go beyond Rs 3.60 per unit."

Further MYT regulations 2012 provide the following provisions for cross subsidy:

"69.1 The distribution licensee's tariff proposal should reflect the reasonable cost of providing service to each consumer class. In case where tariffs are historically distorted with significant level of cross-subsidy, the aim should be to gradually move to non-cross subsidized tariffs.

69.2 In the annual performance review and tariff application, the distribution licensee shall include a report on how far they have implemented the cross-subsidy reduction trajectory approved by the Commission for reduction of cross-subsidy and the measures being proposed in the current application to implement the plan."

The Licensees have not submitted any measures or plan to reduce the inter category cross subsidy which is a vital requirement of tariff policy and MYT Regulations.

16. Audit of loss making feeders

In DHBVN, there are a high no of feeders, both urban and rural, on which the losses are consistently above 50%, but the licensee has not bothered to get energy audit of such feeders done and take suitable measures to curtail the same despite numerous directives of the Commission on the issue. The Commission had further viewed this lapse on the part of licensee very seriously and had directed to file report on the status of losses on each of these feeders and also prominently display them on their website within 3 months with detailed reasons for non-compliance of the Commission's directives.

However, despite all these warnings, nothing has been done by the Discom. Commission must therefore, invoke Section 142 of the Electricity Act, 2003 and take stringent action against the discom.

17. Cost of Industrial power in Haryana

Hon'ble Prime Minister Mr. Narendra Modi had unveiled his plan of "Make in India" and has focused on reviving the manufacturing sector of India which is witnessing stagnancy and de-growth in last 10 years. He has taken the target of 10% industrial growth in next five years; same has also been incorporated by the ruling party's Haryana Election manifesto.

The Commission would kindly appreciate that as the State industries have to compete in the National/International markets, they need to get assured, cheap, reliable and un-interrupted power at competitive rates. However, during last 3-4 years, the power tariffs in State of Haryana to industry has been enhanced exponentially,

especially for industrial consumers as can be seen from the various orders of the Commission.

The current energy cost of Rs 6.15 per unit of KVA to industry at 11 kV voltage level and taking into consideration the associated costs of fixed charges, PLEC, FSA etc, the overall industrial tariff is amongst the highest as compared to the industrial tariffs of various neighboring states.

The power cost constitutes approx. 10-15% of manufacturing cost on an average for industry and its percentage of manufacturing cost is much higher for power intensive industries. Hence, this higher cost of power is resulting in industry of Haryana state becoming sick, non-competitive as their production cost is higher by 4-5% than other States on an average. The state of Haryana is witnessing very low industrial growth of <1% in recent years as compared to 5-10% being witnessed in the period from 2006-10.

This high cost of power being charged to industry are attributable to various malpractices, mismanagement, inefficiency and incompetency of DHBVN which should not be allowed to be passed on to the consumers of Haryana, and especially the industry which are an engine of economic growth.

It is our considered opinion that to enable industries to operate in Haryana in this competitive environment, there is a strong case to reduce the industrial tariff by a minimum of Rs. 2/- per unit. It is also relevant that as per Media report (PTI dated 4th March 2017) DHBVN has achieved book profit of Rs. 78 Crores in the first half of this fiscal (FY 2016-17) and has projected the saving of Rs. 766 Crores in interest cost on account of UDAY Scheme for FY 2016-17 as the liability has come down to Rs.1005 Crores for this year.

Commission is therefore requested to carry out due diligence of above submissions and take necessary steps to reduce rationalize the charges for industrial power by a minimum of Rs. 2/- per Unit.

18. Unjustified Payment of wheeling charges from OA Consumers for power drawn from energy exchange:

OA Consumers are paying wheeling charges at Rs. 0.71/kWh on Power drawn from energy exchange. They are already paying fixed charges on the entire Contract

Demand. Therefore, there is double recovery from open access consumers and thus wheeling charges should not be levied on OA Power drawn from energy exchange.

19. Refund of Fuel Surcharge (FSA)

The Commission had ordered that the recovery of FSA pertaining to the FY 2014-15 shall be stopped forthwith and in case any FSA amount pertaining to the FY 2014-15 has been recovered after 31.03.2016, the same shall be quantified and intimated to the Commission by the Discom within 15 days from the date of this Order.

In compliance to the above directives, DHBVN has mentioned in its ARR petition that FSA pertaining to FY 2014-15 has been stopped w.e.f. 1.09.2016 vide Sales Circular No. D-27/2016. However, it has yet to refund the FSA of Rs 0.17 per unit which was illegally recovered by the Discoms in the period from November 2014 to March 2015.

We request HERC to give suitable directions to the DISCOM on the subject.

In view of the above, we, the industry of Haryana look forward for your kind intervention in order to save industries from the present stalemate created due to the unwarranted attitude of the DHBVN and provide relief. Commission must therefore, take a judicious, conscious and decisive view of the situation and try to salvage industry out of the rut of power menace. It must consider steps to facilitate the energy supply to industry and solve the various operational issues plaguing the industry.

Discoms Reply

1. Distribution Losses

It is submitted that the Government of India has notified Ujwal Discom Assurance Yojana (UDAY) scheme for operational and financial turnaround of power distribution companies (DISCOMs), on 20th Nov 2015 under which State shall take over 75% of Discom debt as on 30th September, 2015 over two years - 50% of Discom debt shall be taken over in FY 2015-16 and 25% in FY 2016-17. It is pertinent to mention that the UDAY projections are based on certain losses considered for operational and financial turnaround of the DISCOMs.The Nigam submits that, DHBVN is mandated to achieve the loss trajectory as per the UDAY MoU which is as under:-

	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
AT&C loss (%)	25.22%	22.48%	18.76%	15.00%
T&D loss (%)	24.46%	21.70%	17.94%	14.14%

It is pertinent to mention that the Commission has already been very stringent towards allowed distribution losses every year and thus the expenses allowed by the Commission every year while approving the annual revenue requirement are based on targeted loss levels approved by the Commission, and accordingly the disallowed loss levels if any are not considered for calculation of ARR.

The Nigam has constituted theft detection teams to reduce commercial leakages through theft/pilferage. The outstanding arrears from connected/ disconnected consumers are also being recovered by launching arrear recovery drives/schemes and by assigning arrear recovery targets to the sub-divisions. Through the above submissions it is clear that the Nigam has been making the best efforts to reduce the losses and increase the quality of supply and system reliability.

Moreover, DHBVN AT&C loss for financial year 2016-17 till Dec is 22.32% against the target of 22.48% for FY 2016-17. Thus the Discom is well within the UDAY target.

1. <u>Employee Expenses</u>

The Nigam submits that the employee expenses for FY 2017-18 are computed as per the HERC MYT 2012 regulations. The increase in the employee expense for FY 2016-17 and FY 2017-18 is on the account of impact of 7th pay commission.

Furthermore, the per unit employee expenses, Haryana's per unit employee expense is 0.396 which is relatively less than neighboring states

2. <u>R&M Expenses</u>

The Nigam submits that the Discom has projected R&M expenses, as per the formula defined regulation 57.3 of the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012.

(a) $R\&M_n = K * GFA * INDX_n / INDX_{n-1}$

Where,

- *'K' is a constant (expressed in %) governing the relationship between O&M costs and Gross Fixed Assets (GFA) for the nth year. The value of K will be 1.65% for DHBVN and UHBVN respectively for the entire control period;*
- *'GFA' is the average value of the gross fixed asset of the nth year.*

- *'$INDX_n$' means the inflation factor for the nth year as defined herein after.*

Furthermore, it is pertinent to mention that the repair and maintenance work has been increased in view of betterment of the operation of the Nigam and thus providing interrupted power supply and lower breakdown.Special power has been given to SDOs operation for two months with special emphasis on maintenance of transformers, to ensure minimal DT failure and smooth power supply during forthcoming summer. Nodal officers have been appointed to implement, monitor and report the maintenance of DTs.

3. <u>A & G expenses</u>

It is submitted that while estimating the A&G expenses for a particular year, the Discom has to follow the postulates of the HERC MYT Regulations 2012. With regards to A&G expenses of FY 2015-16, it is submitted that the same is based on actual audited accounts of FY 2015-16. Further, during the Truing up exercise the actual expenses are always subject to prudence check and may be allowed once the Commission gets convinced to the genuine and legitimate approvals of the same.

4. <u>Non-Tariff Income</u>

It is submitted that the power supply by a distribution licensee is made for a whole month and then bills are issued after the meter readings are taken. 15 days' time is given to the consumers for making payment of the bills and thus it is almost two months before the payment can be received by the licensee after supplies have started and that the collections of the last two months of the previous year will be collected during first two months of the current year and thus the collections are for a period of 12 months in a year.

The above assertion is vindicated by the judgments passed by various courts of law. The Judgments are as follows:

The Hon'ble APTEL vide its judgment over Appeal No. 223 of 2006 dated October 4, 2007 in the matter of M.P. Electricity Consumers' Society Vs Madhya Pradesh Electricity Regulatory Commission has agreed to the non-inclusion of the Delayed Payment surcharge while calculating the ARR.

Analysis and Decision:

13. On a consideration of contentions of all parties, we are inclined to agree with the decision of the Commission to not include delayed surcharge revenue in the ARR in view of the fact that the working capital amount has been reduced to the

bare minimum, 100% collection is not happening as of now, and therefore, to meet its cash requirements, the Discoms will have to borrow from Banks to compensate for the outstanding payments from consumers.

Further, the Hon'ble Aptel vide its judgment over Appeal No. 153 of 2009 dated 30th July, 2010 in the matter of North Delhi Power Ltd. Vs Delhi Electricity Regulatory Commission has agreed as hereunder:

The normative working capital compensates the distribution company in delay for the 2 months credit period which is given to the consumers. The late payment surcharge is only if the delay is more than the normative credit period. For the period of delay beyond normative period, the distribution company has to be compensated with the cost of such additional financing.

Further, the Hon'ble Aptel vide its judgment over Appeal No. 142 & 147 of 2009 dated 12th July, 2011 in the matter of BSES Rajdhani Power Limited Vs Delhi Electricity Regulatory Commission has agreed as hereunder:

***Submissions by the Appellant (*BSES Rajdhani Power Limited):**

4.5. The amount earned on account of late payment surcharge considered as part of revenue: The State Commission has considered the amount of Rs. 31.77 crores earned on account of Late Payment Surcharge as part of revenue while truing up the Annual Revenue Requirement for FY 2007-08. The MYT Regulations allow working capital on a normative basis to take care of normal time taken in payment of bills by the consumers within due date. The Appellants have to arrange additional funds for default in payment by the consumers in actual practice which is not covered in the working capital. According to the Appellant this issue has been covered by this Tribunal's Judgment 2010 ELR (APTEL) 0891 in the matter of North Delhi Power Limited vs. DERC

Judgment by the Hon'ble Tribunal:

14.1. This issue had already been decided by the Tribunal in its Judgment dated 30.7.2010 reported as 2010 ELR (APTEL) 0891 titled as North Delhi Power Ltd. vs. DERC. The relevant extracts of the Judgment are reproduced below:

"Only interest income on surplus funds to the extent of delayed payment surcharge and interest on consumer security in excess of the rates specified by the Commission should be considered as non-tariff income for deduction in ARR. Also the interest income on consumer's share of incentive on over-achievement of AT&C losses need to be deducted from ARR. However, the Appellant has argued that he has factored the interest income while computing the carrying cost on the revenue gap. Consequently, the carrying cost is lower to that extent. When the benefit of the same has already been passed on to the consumer, the same cannot be passed on to them by way of interest cost. However, in order to

correctly determine the ARR as per the Tariff Regulations, the interest income on delayed payment surcharge and difference in interest rate on consumer security with respect to that specified by the Regulations may be considered as non-tariff income to be deducted from the ARR. Also interest on consumer's share of incentive on over-achievement of AT&C losses has to be deducted from ARR. The Commission will compute the interest income for which credit is to be given to consumer from total interest income. Accordingly, adjustment may be made in carrying cost on the revenue gap claimed by the Appellant to avoid double deduction of the interest income on this account in the ARR. On the remaining surplus fund on Retail Supply Tariff the benefit of interest income is to be retained by the Appellant on account of return on equity earned, overachievement in AT&C losses and efficiency in controllable parameters, working capital, etc. invested in mutual funds/banks. ***The State Commission cannot erode the benefit to be derived by the distribution company by considering such interest income as a part of the non-tariff income"***

This issue is accordingly decided in favour of the Appellant.

5. <u>Power purchase costs</u>

The reply towards considering the distribution losses has already been submitted in the submissions given for the earlier points and are not repeated here for the sake of brevity.

6. <u>Return on Equity</u>

The norms set by MYT Regulations, notified by the Commission dated 05.12.2012.

The relevant extracts from MYT Regulations, in the concerned matter are as follows:-

20. RETURN ON EQUITY
20.1 The rate of return on equity shall be decided by the Commission keeping in view the incentives and penalties and on the basis of overall performance subject to a ceiling of 14% provided that the ROE shall not be less than the net amount of incentive and penalty .
20.2 Return on equity shall be allowed on equity employed in assets in use considering the following and subject to regulation 20.1 above:
i. Equity employed in accordance with regulation 19.1 and 19.2 on assets (in use) commissioned prior to the beginning of the year; plus
II. 50% of equity capital portion of the allowable capital cost for the assets put to use during the year.
Provided that for the purpose of truing up, return on equity shall be allowed from the COD on pro-rata basis based on documentary evidence provided for the assets put to commercial operation during the year.

20.3 Return on equity invested in work in progress shall be allowed from the actual date of commercial operation of the assets.

20.4 There shall be no Return on Equity for the equity component above 30%".

It is submitted that Return of Equity RoE is very vital source of funding a portion of Capital Expenditure planned by the Utilities in order to improve the system and to achieve further loss reduction. Disallowing RoE on the context of financial performance deprives the utilities of an indispensable source of internal accrual which is more significant in view of the financially constrained position that creates a very difficult situation while endeavoring to borrow funds from the market to fund basic capital expenditure.

7. <u>Supply Voltage wise and consumer category wise distribution and AT&C losses:</u>

Nigam submits that the Commission in line with the APTEL judgment dated 30.05.2011 in Appeal No. 102,103 & 112 of 2010 had adopted the methodology suggested by the Hon'ble APTEL in the ibid judgment dated 30.05.2011 for broadly working out voltage wise CoS for the FY 2015-16. However, the Nigam further submits that for computation of CSS, the Commission has considered the amended National Tariff policy which has provided a revised CSS formula. In addition, the Nigam submits that once the study for carrying out voltage wise CoS is accomplished, the findings related to the same shall be furnished.

8. <u>Incentivization for industries for going Solar</u>

The Nigam submits that, providing incentive to roof top solar plant for industry is as per Government of Haryana's direction. DHBVN is not authorised to increase the current rebate of Rs. 0.25/unit to Rs. 1/unit and the matter pertains to the Commission.

9. <u>Fixed Charges</u>

The Nigam submits that the introduction of fixed charges for certain consumer categories is in line with the two-part tariff principle adopted by almost all the State Electricity Regulatory Commissions (SERCs) across the country. A certain amount of fixed charges has to be charged from consumers as a means of recovering the investment already made by the Discoms assuming a certain minimum demand. Especially for industrial consumers, distribution licensees have to undertake significant investment in the attempt to ensure an adequate system in place to cater to the

collective demand of the industrial units, if need be. Hence, fixed charges on the basis of connected load/contract demand are legitimately essential.

Almost all State Electricity Regulatory Commissions (SERCs) across the country have already made the progressive move to a two-part tariff. This is because fixed charges are essential for allowing recovery of certain costs of fixed nature which are borne by the licensee irrespective of the quantum of energy purchased by end consumers. It is important to note that only a part of the fixed costs incurred by the licensees are recovered through fixed charges/demand charges from consumers.

10. Non-compliance to the directives of the Commission

i) Cost of supply

It is submitted that the distribution licensees are in the process of undertaking the category wise cost to serve; however, the same has been delayed due to various reasons. It is submitted that the non-submission of category wise cost to serve will not invalidate the tariff fixation exercise by the Commission. It is submitted that the Commission is empowered to determine tariff on a suo-moto basis as well.

Moreover, the Discoms seeks to rely on the following judgments towards revision in tariff by the Commission:

- Judgement dated 11.08.2011 in Appeal No. 204 of 2010, FIA & Ors. v. HERC & Ors. – paras 6.8, 7.10 and 7.14 – The State Commission can increase tariff even in a suo moto proceedings.
- Judgement dated 11.11.2011 in OP No. 1 of 2011, Tariff Revision – paras 21, 32-33, 56, 62, 65 (ii) – Commission can do suo-moto determination of tariff in absence of filing of tariff petitions by licensees and can take into account the average cost of supply. Also financial viability of the distribution licensees is to be maintained.
- Judgement dated 17.01.2012 in Appeal No. 11 of 2011, Northern Railways v. HERC & Ors., para 49 – non determination of category wise cost of supply will not make the tariff determination illegal.
- Judgement dated 31st May, 2013 in Appeal No. 179 of 2012, Kerala High Tension and Extra High Tension Industrial Electricity Consumer's Association v. KSERC & Anr. – paras 20,22,24, 30-32, 41-43, 47, 49 – Average cost of supply permissible. Principles reiterated.

- Judgement dated 28.11.2013 in Appeal No. 239 of 2012, Amausi Industries Association & Ors. v. UPERC & Ors. – paras 90-91 – Commission not bound by the figures of the licensee.

ii) **AP Subsidy**

The Nigam submits that, the direct transfer of RE subsidy to AP Consumers in their Aadhar linked bank account is a matter of decision of the State Government.

iii) **Replacement of defective Meters**

All possible efforts are being made by the Nigam to replace the defective meters. The Nigam has replaced substantial single phase meter and three phase meter in the current financial year as well as in the previous financial year as under:-

	Mar-15 to Dec-15		Mar-16 to Dec-16	
Area	**Single Phase**	**Three Phase**	**Single Phase**	**Three Phase**
Urban	36061	9404	46325	9426
Rural	34315	1734	45200	1416
Total	**70376**	**11138**	**91525**	**10842**

Moreover, the meters becoming defective and their replacement is an ongoing process.

iv) **Reporting of Circle wise losses**

The Nigam submits that the circle wise losses and other important operational parameters of DHBVN are available on website at the following link http://www.dhbvn.org.in/web/portal/commercial. Moreover the figures are updated on quarterly basis. Also the other details of all the concerned officers are also available at the website.

v) **Non replacement of Electro-mechanical Meters:**

The Nigam submits that the meter replacement of Electromechanical meters to electronic meter is one of the main focus under LRP scheme for urban and MGJG under rural area. But it is pertinent to mention here that the quantum of the Electro Mechanical meters are far more in rural area as compared to urban area. Priority of replacing Electro Mechanical meter is for urban area, as meter are replaced more under LRP scheme in the urban area. The comparison of the progress is as under:-

	Electro Mechanical Meter present at the start of the year	**Electro Mechanical Meter replaced (Apr-Dec)**
FY 2015-16	4,23,345	47,804
FY 2016-17	3,61,853	38,600

vi) **Issuance of bills and realization of payment thereof in urban areas**

The Nigam submits that, the bill of all category can be downloaded from Discom's website and also payment can be done through the same by using payment gateway to facilitate consumer.

vii) **Directive on RPO Obligation**

For the FY 2016-17, the detail of RPO met are as under:

	Target in %	Energy consumption FY 2016-17.	Target in MUs	Target achieved till Feb. 17	Shortfall (-) / Excess (+)
		MUs	MUs	MUs	MUs
Solar	1	46827	468.27	134.42	-334.85
Non-solar	2.75	46827	1288	1793	505*

Justification for Solar RPO shortfall in FY 2016-17

HPPC was not able to meet solar RPO targets for the FY 2016-17 due to the following reasons:

1. 23MW from four developers was expected to be commissioned in the FY 2016-17 through Independent Power Producers selected through competitive bidding which could have generated 38 MUs in a year. HERC vide order dated 4.10.2016 did not approve PPAs. Consequently, the bidders challenged the said order in APTEL which is pending.
2. Further, HPPC issued LOI for 165 MW solar plants but PPAs were not approved by the State Commission which could have generated 270 MUs in a year. HERC vide order dated 4.10.2016 did not approve PPAs. Consequently, the bidders challenged the said order in APTEL which is pending.

Action plan to meet Solar RPO targets

1. HPPC has filed a petition in HERC to purchase 250 MW solar power through SECI under VGF scheme @ Rs. 4.50/kwh.
2. HPPC has filed a petition to purchase 353 MW solar power through bundling with 200 MW thermal power of Singrauli TPP from NTPC.
3. HPPC is going to float NIT to purchase 300 MW solar power through competitive bidding.

4. **HPGCL Projects (65.2 MW) :** HPGCL is planning to have 65.2 MW Solar Power Projects at the waste land of its projects located at Faridabad, Panipat & Hisar Haryana DISCOMs will purchase this power to meet its RPO obligation.
5. **Rooftop Solar power**: HAREDA in its Solar Policy 2016 has envisaged to purchase 1600 MW solar rooftop power till FY 2021-22.

As far as Solar Rooftop is concerned, HAREDA is taking initiative to encourage solar rooftop projects. However, for existing solar rooftop projects, the data regarding RPO is being taken up from CE Commercial of the DISCOMs/ HAREDA.

Non-solar RPO

HPPC has met the Non-solar RPO targets for the FY 2016-17 alongwith 505 MUs against the backlog of 1000 Mus from FY 2011-12 to FY 2014-15

Action plan to meet the Non-solar Targets:

a. HPPC is going to float NIT to purchase 200 MW wind power through competitive bidding.

b. M/s K2 Power Gen Pvt. Ltd. hassigned the MOU's during the "Happening Haryana Global Investor Summit" for setting up of 2000 KW Capacity Grid Connected Biomass Gasifier Power Plant proposed in State of Haryana on self-identified basis. The petition to seek in-principle approval to sign PPA with the firm has been filed in the HERC.

c. M/s RSL Distilleries Pvt. Ltd. offered to sell 3.5 MW power to be generated from 5.5 MW biomass (non bagasse) cogeneration power plant proposed at Karnal, the proposal of firm is under evaluation in HAREDA and the SCPP has approved in –principle to purchase this power.

d. HPPC has signed PPA with M/s Naraingarh Sugar mill for 25 MW bagasse based power plant and M/s Gemco Biomass based plant for 7 MW.

e. HAREDA is in the process of floating NIT to purchase 50MW of straw based biomass power which will be purchased by HPPC to meet non-solar RPO.

viii) **Power drawl under UI Mechanism**

DHBVN submits that it must be noted that the overdrawal of Power under UI occurs sporadically, and the overdrawal occurs only to ensure that the supply to the consumers is not intermittent in nature. However, the Nigam additionally submits that,

to optimize the power scheduling and to minimize Power Purchase Cost, REC Power Distribution Company Limited, a subsidiary of REC has been engaged in creation of a demand forecasting cell.

11. Standards of performance and reliability indices

It is submitted that the Commission had notified the Haryana Electricity Regulatory Commission (Standards of Performance for the Distribution Licensee) Regulations, 2004 dated 16 July 2004 which were further amended vide the Haryana Electricity Regulatory Commission (Standards of Performance for the Distribution Licensee) 1st Amendment, Regulation, 2007 dated 11th September 2007.

The 'standards of performance' regulations provide for payment of compensation to the consumer who faces inconvenience due to discom in delivery of service within the specified time period.

However, it is submitted that unless it is shown that specific standard is violated and that on account of such violation, loss had occurred, the Appellant cannot claim for compensation.

Section 57(2) provides for a case by case determination of compensation. Such compensation has to be paid to the affected person. This will make it clear that the State Commission will have to determine on the basis of allegation that a particular standard of performance had been violated, as to how and what extent the person has been affected due to such violation.

The reading of this provision in its entirety would make it evident that a person who made a prayer for compensation in the petition under section 57(2) of the Act, 2003, has to satisfy two requirements:-

ix) The licensee has failed to maintain the particular standard of performance prescribed by the State Commission, specified under sub section 1 of Section 57 of the Act, 2003.

ii) On account of such failure, he has suffered a loss, which needs to be compensated.

In the absence of the any particular case of failure to follow the particular standard of performance, the question of compensation due to such failure will not arise.

12. New supply connections

The Nigam submits that the process of release of new connections is completed within the time period of less than a month provided that the all the prerequisites are complete viz. technical feasibility, clearance from other department, test report submission, Inspection, etc. the prerequisites are as per the Electricity Supply code, regulation 29/2014, issued by The Commission. Until all the prerequisites are checked and completed connection can't be released. However, Pendency of application are on downward trend, with current pending application of 30,269 with load applied 910.69 MW. Furthermore, process re-engineering is underway for speedy release of connections viz. online filling of application for new connections / Load enhancement / Load reduction even for load up to 20 kW. Also, Proper monitoring mechanism shall be put in place to ensure expeditious release of connections.

13. Penalty for contraventions

It is submitted that the Discoms endeavor to comply with the directions of the Commission and consequently, the Discoms have been providing details to the Commission regarding compliance of the directives. However, in case there has been/is required a delay/lag over successful compliance of a directive by the Discoms, the Commission is intimated regarding the same and necessary discussions are done considering the rightful significance of the matter and compliance of the same.

14. Tariff philosophy

It is submitted that for evaluating the cross subsidy levels, the Discoms have already moved towards assessing the category wise cost of supply to various consumer categories which shall be submitted to the Commission as and when the study gets completed with accurate and valid results. Till such time, the Discoms have considered the approved category wise cost of supply details, cross subsidy generated from cross subsidizing categories as evaluated by the Commission for respective years.

15. Audit of loss making feeders

The Nigam submits that the audit of urban and rural feeders are on priority. Various steps have been taken by the Nigam to reduce the Losses with the specific focus on long term improvement in the power quality and reliability. Various strategies are being adopted in urban and rural areas based on their loss level. The steps taken for reduction of technical and commercial losses are as follows:-

- High loss Feeder are being identified and the Sanitization work which is under progress and is being monitored regularly. All the Circle (Op) teams have been instructed to speed up in order to complete the pending work so that the loss level would be brought down to normative level.
- Consumer Indexing for RAPDRP towns, non-RAPDRP towns, & rural areas is under progress which would help the Nigam to calculate the losses from the billing database and further pin point the losses incurred at DT level which will eventually help the Nigam to optimize its resources and making efforts towards effective loss reduction.
- Feeder Sanitization Activities are carried out geographically as: (1) Urban Feeder Sanitization & (2) Mhara Gaon Jagmag Gaon Scheme for selected RDS feeders. In both the plans, Nigam has focused on the following four major activities:
- Improving accurate reading of energy meters via replacement of Defective, faulty, Burnt, Glass broken, no display, inconsistent, electromechanical, and old version meters.
- Minimizing occurrence of theft of energy via relocation of meters which are located inside the Consumer premises and are prone to theft of energy.
- Preventive measures to eliminate direct theft of energy via replacing ACSR conductors, bare conductors present in theft prone areas with LT AB Cables to eliminate direct theft of energy.
- Releasing of New Connections: Unauthorized colonies, connections with direct theft, pending connections, un-electrified households are being provided a new connection to bring them in to billing net.

As the main focus of loss reduction is on urban feeders the number of urban feeders having loss more than 25% has been substantially reduced to 170 Nos this fiscal from 206 Nos in the last fiscal.

16. <u>Cost of Industrial power in Haryana</u>

The Nigam submits that, as the tariff rationalization is based on the overall approved annual revenue requirement of the Discoms, out of which around 80% corresponds to the net power purchase cost. The Commission has a two-sided responsibility to protect the financial interests of the distribution licensees and to

balance the interests of various stakeholders. The utilities have reached to the condition of financial distress owing to the following reason:

- No increase in consumer tariff in spite of continuous increase in cost of power purchase and average cost of supply.

Further, the Commission vide its Order dated 1.08.2016 and Order dated 03.03.2017 has already given relief to the consumers by significantly reducing the FSA for each category of consumers.

17. Unjustified Payment of wheeling charges from OA Consumers for power drawn from energy exchange:

The Nigam submits that, the wheeling charges are being levied on the consumers for the use of distribution network of the Licensee irrespective of the source from where the power is drawn by the open access consumers. Further, the wheeling charges from OA consumers is approved by the Commission.

18. Refund of Fuel Surcharge (FSA)

The Nigam submits that in regard to the said FSA of 17 paisa per unit, it is mentioned that the recovery @ 17 paisa per unit has been adjusted by the Commission while calculating the outstanding FSA in its Order dated 19.03.2015.

Moreover, the Nigam further submits that through HERC Order dated 03.03.2017, the Commission, orders that the recovery of these FSA's shall continue at the rate determined above till such time i.e. 65 paise per unit from 01.04.2017 to 30.06.2017 and @ 37 paise per unit thereafter till the total amount as determined in the present Order is fully recovered. The same is being implemented in DHBVN through sales circular D14-2017 dated 28.03.2017

2.3.4 Comments on True-up petition of DHBVNL for FY 2015-16 before HERC by M/s Faridabad Industrial Association

1. O & M Expenses

As per 13.2 of MYT regulation 2012:

> *"13.2 Truing-up of uncontrollable items shall be carried out at the end of each year of the control period through tariff resetting for the ensuing year and for controllable items shall be done only on account of force majeure conditions and for variations attributable to uncontrollable factors."*

As given at 2.4.5 of the True-up petition of DHBVNL, the comparison of approved O & M expenses by HERC in its order dated 7 May 2015 and actual being claimed by DHBVNL for FY 2015-16 is given below:-

Table 4: O&M Expenses for FY 2015-16 (In Rs. Crores)

Sr.	Particulars	Approved	Actual	Difference
1	Employee Expense	518.52	637.69	(119.17)
2	Administration & General Expense	60.46	72.13	(11.67)
3	Repair & Maintenance Expense	98.07	35.64	62.43
4	Terminal Liability	150	392.00	(242.00)
	Total	**827.05**	**1137.46**	**(310.41)**

It indicates that DHBVN has spent Rs 119.17 cr more on employee expenses and 11.67 more on A & G expenses which need to be disallowed by the Commission as 57.3 of the regulation clearly indicates that:

"

57.3 Operation and Maintenance Expenses

The actual audited O & M expenses for the financial year preceding the base year, subject to prudence check, shall be escalated at the escalation factor of 4% to arrive at the O & M expenses for the base year of the control period. The O&M expenses for the nth year of the control period shall be approved based on the formula given below.

O&Mn = (R&Mn + EMPn + A&Gn)* (1-Xn) + Terminal Liabilities
Where,
R&Mn – Repair and Maintenance Costs of the Distribution Licensee(s) for the nth year;

EMPn – Employee Costs of the Distribution Licensee(s) for the nth year excluding terminal liabilities;

A&Gn – Administrative and General Costs of the Distribution Licensee(s) for the nth year;

The above components shall be computed in the following manner.

(a) R&Mn = K * GFA * INDXn / INDXn-1*68 Where,*

'K' *is a constant (expressed in %) governing the relationship between O&M costs and Gross Fixed Assets (GFA) for the nth year. The value of K will be 1.65% for DHBVN and UHBVN respectively for the entire control period;*

'GFA' *is the average value of the gross fixed asset of the nth year.*
'INDXn' *means the inflation factor for the nth year as defined herein after.*

(b) EMPn (excluding terminal liabilities) + A&Gn = (EMPn-1 + A&Gn1)*(INDXn/ INDXn-1)
Where,

INDXn – Inflation Factor to be used for indexing the Employee Cost and A&G cost. This will be a combination of the Consumer Price Index (CPI) and the Wholesale Price Index (WPI) for immediately preceding year and shall be calculated as under:

INDXn = 0.55*CPIn +0.45*WPIn.

Note 1: *For the purpose of estimation, the same INDXn value shall be used for all years of the control period. However, the Commission shall consider the actual values of the INDXn at the end of each year during the annual performance review exercise and true-up the employee cost and A&G expenses on account of this variation.*

Note 2: *Any variation in employee cost and A&G cost on account of reasons beyond variation in INDXn shall be subject to the incentive and penalty framework specified in regulation 12.*

Note 3: *As and when any material price index specific to power sector or a more relevant Index becomes available, the same shall replace the Index used for working out R&M cost.*

Note 4*: Terminal liabilities shall be approved as per actual expenditure incurred by the distribution licensee or established through actuarial valuation for the ensuing year.*

Note 5*: O&M expenses made on account of extraordinary situations (if any) shall be submitted to Commission for its approval. Such expenses shall be filed separately and will not be subjected to incentive and penalty framework. The approved amount by the Commission shall be trued up in the annual performance review.*

Note 6: *Changes in the pay scales of employees necessitated on account of pay revision by Pay Commission or by the State Government orders shall be considered by the Commission for true-up during the annual performance review.*

(c) Xn is an efficiency factor for nth year

The Value of Xn will be determined by the Commission in the MYT order for the control period."

In line with above regulations, the Discom should have given a clear explanation and calculation of expenses of all the components of O & M expenses and a mere mention of this amount in the audited accounts is not enough. They must take a base value of employee expenses, R &M expenses and A &G expenses, apply inflationary index and the efficiency factor to arrive at the expenses which they wish to get approved from the Commission.

In the absence of any calculation and justification, Commission may therefore, allow total O &M expenses of Rs 827.05 as approved in the tariff order dated 7th May 2015 for FY 2015-16 against Rs 1137.46 Cr as claimed by the DHBVN in line with MYT Regulations while considering true up for FY 2015-16.

Further it is observed that actual R & M expenses of DHBVNL are very low at Rs 35.64 cr against the approved figure of Rs 98.07 cr as per the tariff order dated 7 May 2015. It is found that DHBVNL is not spending enough on R & M expenses as a percentage of total ARR. It should improve its operational performance with judicial expenditure on R & M. The study on "Various power distribution models in India" conducted by CRISIL Infrastructure Advisory for the High level panel (HLP) constituted under the Chairmanship of Shri V.K. Shunglu highlighted that one of the reasons behind better performance of the private distribution licensees has been IT implementation, adequate expenditure on R&M and judicious expenditure on employee cost.

A comparison of these expenses with other government and private distribution companies indicates that while the private distribution licensee have been spending about 25% to 35% of their O&M expense on repair and maintenance of their network, the majority of DHBVN's O&M costs are directed towards employees and administration.

We humbly request the Commission to direct the licensee to work on improving its operational performance by judicious expenditure in O&M cost for supplying quality power to the consumers.

2. RPO Obligation

At 3.4.10 (c) of the distribution tariff order dated 7 May 2015, and the Table 3.33 of this order, the Commission had stipulated the Renewable energy purchase quantum as 402 MUs.

Also as given at Table 3.34 of the order dated 7 May 2015 and and the note below it, Commission had considered the total shortfall in solar and non solar RPO from 2011-12 to 2015-16 as 3691.08 MUs. Commission had further directed that the Discom should meet the solar and non solar RPO as provided in HERC RE Regulations and any shortfall in meeting RPO shall be treated in accordance with the Regulation 64 of HERC (Terms and Conditions for determination of Tariff for Renewable Energy Sources, Renewable Purchase Obligation and Renewable energy Certificate)

Regulations, 2010 and Discom would be penalized accordingly, which is fully supported by MYT regulations 2012 also. Regulation 59.8 of MYT Regulation 2012 clearly stipulates that distribution license is obliged to follow renewable energy regulations and is to be penalized accordingly in case of any shortfall.

As can be seen from the DHBVN True up petition, there is hardly any energy purchase from renewable energy sources and the DHBVN has miserably failed in its obligation of RPO which has now been repeatedly happening over the years.

The Commission is therefore, requested to treat the violation in accordance with the provisions of regulation 65, 66 and 67 on renewal energy purchase and penalize the DISCOM accordingly.

3. Power purchase Costs

As per 2.3.5 of DHBVN petition, DHBVNL has asked for a true up of power purchase cost of Rs 12500.4 Cr for FY 2015-16. It has indicated the average actual per unit cost of power as Rs 4.57 against the approved average power purchase cost of Rs 4.47 per unit by HERC in its tariff order dated 7th May 2015. DHBVN has attributed the higher power purchase costs to the increase in power costs from various sources and has not given any cogent explanation for the same.

It may be noted that as per MYT regulations 8.3 (b) of 2012, governing the Multiyear tariff frame work, power purchase cost for short term power and UI is a controllable parameter and any cost escalation on account of short term power and UI cannot be allowed to pass on in the ARR of the distribution licensee.

Referring to table 3 of true up petition of DHBVNL, it is observed that its actual per unit power purchase cost for FY 2015-16 has gone up though total power purchase quantum in the state of Haryana has come down by 10903.65 MUs for both DISCOMs during FY 2015-16.

A close scrutiny of Table 3 of true up petition of DHBVNL indicates that higher actual power purchase cost for DHBVNL of Rs 4.57 per unit is mainly on account of drawl under UI at an average rate of Rs 7.02 per unit which is much higher than average price of Rs 4.46 per unit approved by Commission as total average power purchase price.

Further referring to note below table 3.25 of the order dated 7 May 2015, which is reproduced below:-

"The Commission observes that given the power availability scenario there may not be any need to purchase short-term expensive power or drawl under UI mechanism in a low grid frequency situation. However, in case such purchase is necessitated to manage day-to-day operations the purchase rate should not exceed the average per unit cost of power approved by the Commission."

It is clearly stated by the Commission that under no circumstances, power purchase price during drawl under UI Mechanism should exceed the average power purchase price. Also the following clauses of the Commission's order dated 7 May 2015 clearly lay down the treatment of drawl of power under UI Mechanism:

"3.4.2 Commission's Estimate of power purchase Quantum

As per the submissions of the Discoms and the fact that they have projected surplus energy, the Commission believes that there may not be any need to rely on expensive short term sources or drawl under UI mechanism in a low grid frequency condition. Consequently, the Commission reiterates that the Discoms / trading company should explore the possibilities of actively participating in bids for procurement of power floated by energy deficit states / distribution companies outside the state as well as explore the possibilities of supplying additional power to the HT Consumers during the hours when the Discoms are resorting to under drawl / backing down of power plants at a concessional rate i.e. lower than the approved tariff and charges. The tariff in such cases could be based on grid frequency based meters. Further, while merit order stacking the Discoms should take into account Fixed Cost of backing down / under-drawl, which they anyway have to pay to the generators in addition to the fuel / variable charges. This, the Commission believes, would go a long way in reducing the average cost of power available for sale to the electricity consumers of Haryana and to reduce the trading losses incurred by the Discoms.

"

3.4.9 Power Purchase through Short Term/bilateral/UI mechanism

The Discoms have not proposed any drawl of power under short - term / bilateral & UI mechanism. Consequently, the Commission, while estimating quantum of power purchase, has not considered any power from short – term arrangements including drawl under UI mechanism."

"3.5.5 Price of Short term Power purchase/bilateral arrangements

The Commission has not considered any short-term purchases or drawl under UI mechanism and hence for estimating power purchase cost the same has not been considered."

The Commission had clearly not allowed any short term power purchase or drawl under UI mechanism for estimating power purchase cost of DHBVN for FY 2015-16. Also Regulation 60.3 of HERC Tariff regulation 2012 on short term power requirements, do not allow the provisions of pass through of quantum and cost of short term power purchased by the DISCOMs without the approval of the Commission. In its

order dated 1 August 2016 also, the Commission had made critical observations on its UI drawl by the DHBVN s as given below:-

> "*The Commission observes that the Discoms have been drawing power under UI mechanism at a very high rate. In the FY 2014-15 power has been drawn under UI mechanism at a cost of over Rs. 7.50/Kwh. This has been viewed very seriously by the Commission and for the FY 2016-17 the Discoms are directed to manage the UI drawls more efficiently and the Commission may not approve the power purchase cost of such drawls at a rate higher than the average cost of power purchase, any loss on account of that shall be borne by the Discoms."*

In view of the above, it is strongly requested that any overdrawl of power under UI at a rate higher than the average power purchase rate must be disallowed by the Commission in line with its own earlier stand and in line with the statutory provisions as given in the regulations.

The Commission is therefore, requested not to consider and allow any power purchase cost incurred on account of short term power purchase or power under UI for the FY 2015-16. Commission is also requested to disallow any illogical and imprudent procurement of power resulting in trading loss and true up ARR for FY 2015-16 only after adjusting the FSA already collected from the consumers.

It may further be noted that power purchase cost of DHBVNL is considerably higher than that of some other DISCOMs like MP and Rajasthan as a percentage of their total ARRs. Where as in case of DHBVN, it is generally about 80% of the total ARR, it is about 70% of their respective ARRs in M.P and Rajasthan. The Model tariff regulations of Forum of Regulators also have suggested detailed power purchase planning by distribution licensee on long-term, medium-term and short term basis. On its part, Commission also had made the similar observations as given below in tariff order dated 30th March 2013:

> *"The Commission is of the opinion that excess availability of power is due to mismatch between the availability of power and the ability of the licensees to supply the same to the consumers in an efficient manner in the state. The interstate sale of power should be managed in such a manner so that the consumers of the state are not made to suffer loss due to this inability of the licensee. In case the power procurement planning in done in an efficient manner, the licensees should even be able to subsidise the consumers of Haryana by selling the excess power to consumers outside the state at remunerative rates. "*

The Commission is therefore, requested to guide the distribution licensees of Haryana to carry out a better power procurement planning in short, medium and long run so as to arrive at an optimum power purchase cost.

4. Employee Expenses

At 2.5.3 of its petition, DHBVNL has shown actual employee expenses of Rs 637.69 cr for the FY 2015-16 and has requested for the true up of these expenses. However, as per the prevailing regulations 2012 of HERC, Commission may kindly approve only the expenses as approved in its tariff order dated 7th May 2015, which is Rs 518.52 Cr and variation as permissible only to the extent of variation in the inflationary index and efficiency factor.

The relevant extracts from the tariff regulations on employee costs are given below:-

> ***(b) EMPn (excluding terminal liabilities) + A&Gn = (EMPn-1+A&Gn1)*(INDXn/ INDXn-1)***
>
> *Where,*
>
> *INDXn – Inflation Factor to be used for indexing the Employee Cost and A&G cost. This will be a combination of the Consumer Price Index (CPI) and the Wholesale Price Index (WPI) for immediately preceding year and shall be calculated as under:*
>
> ***INDXn = 0.55*CPIn +0.45*WPIn.***
>
> ***Note 1:*** *For the purpose of estimation, the same INDXn value shall be used for all years of the control period. However, the Commission shall consider the actual values of the INDXn at the end of each year during the annual performance review exercise and true-up the employee cost and A&G expenses on account of this variation.*
>
> ***Note 2:*** *Any variation in employee cost and A&G cost on account of reasons beyond variation in INDXn shall be subject to the incentive and penalty framework specified in regulation 12."*

Employee expenses are the controllable expenses and as can be seen from above, any variation in employees costs from the approved figures is allowed only to the extent of variation in inflation factor.

The Discom should have given a clear explanation and calculation of expenses of Rs 637.69 cr for employee expenses and a mere mention of this amount in the audited accounts is not enough. They must take a base value of employee expenses,

apply inflationary index and the efficiency factor to arrive at the expenses which they wish to get approved from the commission.

In the absence of any calculation and justification, Commission may therefore, allow an employee expenses of only Rs 510.43 Cr (after capitalization) as approved in the tariff order dated 7 May 2015 for FY 2015-16 against Rs 637.69 Cr as claimed by the DHBVN in line with MYT Regulations.

5. Administrative & General Expenses

As per 2.7.2 of its true up petition, DHBVNL has requested for approval of net A & G expenditure of Rs 72.13 cr on actual basis. However, as it can be allowed only on normative basis, Commission may allow this expense to the extent of approved expenditure of Rs 53.52 cr after deducting the expenses capitalized as Rs 6.94 Cr as per its order dated 7 May 2015 and and variation as permissible only to the extent of inflationary index and efficiency factor may be permitted.

The Discom should have given a clear explanation and calculation of expenses of Rs 72.13 cr for A &G Expenses and a mere mention of this amount in the audited accounts is not enough. They must take a base value of A &G expenses, apply inflationary index and the efficiency factor to arrive at the expenses which they wish to get approved from the Commission.

In the absence of any calculation and justification, Commission may therefore, allow an A&G expenses of Only Rs 53.52 Cr (after capitalization) as approved in the tariff order dated 7 May 2015 for FY 2015-16 against Rs 72.13 Cr as claimed by the DHBVN in line with MYT Regulations.

6. Efficiency factor

Referring to 57.3 of the tariff regulations, following has been stipulated:

"57.3 Operation and Maintenance Expenses

The actual audited O & M expenses for the financial year preceding the base year, subject to prudence check, shall be escalated at the escalation factor of 4% to arrive at the O & M expenses for the base year of the control period. The O&M expenses for the nth year of the control period shall be approved based on the formula given below.

O&Mn = (R&Mn + EMPn + A&Gn)* (1-Xn) + Terminal Liabilities
Where,
R&Mn – Repair and Maintenance Costs of the Distribution Licensee(s) for the nth year;

EMPn – Employee Costs of the Distribution Licensee(s) for the nth year excluding terminal liabilities;

A&Gn – Administrative and General Costs of the Distribution Licensee(s) for the nth year;

The above components shall be computed in the following manner.

(a) R&Mn = K * GFA * INDXn / INDXn-1*68 Where,*

***'K'** is a constant (expressed in %) governing the relationship between O&M costs and Gross Fixed Assets (GFA) for the nth year. The value of K will be 1.65% for DHBVN and UHBVN respectively for the entire control period;*

***'GFA'** is the average value of the gross fixed asset of the nth year.*

***'INDXn'** means the inflation factor for the nth year as defined herein after.*

(b) EMPn (excluding terminal liabilities) + A&Gn = (EMPn-1 + A&Gn1)*(INDXn/ INDXn-1)
Where,

INDXn – Inflation Factor to be used for indexing the Employee Cost and A&G cost. This will be a combination of the Consumer Price Index (CPI) and the Wholesale Price Index (WPI) for immediately preceding year and shall be calculated as under:

INDXn = 0.55*CPIn +0.45*WPIn.

***Note 1:** For the purpose of estimation, the same INDXn value shall be used for all years of the control period. However, the Commission shall consider the actual values of the INDXn at the end of each year during the annual performance review exercise and true-up the employee cost and A&G expenses on account of this variation.*

***Note 2:** Any variation in employee cost and A&G cost on account of reasons beyond variation in INDXn shall be subject to the incentive and penalty framework specified in regulation 12.*

***Note 3:** As and when any material price index specific to power sector or a more relevant Index becomes available, the same shall replace the Index used for working out R&M cost.*

***Note 4**: Terminal liabilities shall be approved as per actual expenditure incurred by the distribution licensee or established through actuarial valuation for the ensuing year.*

***Note 5**: O&M expenses made on account of extraordinary situations (if any) shall be submitted to Commission for its approval. Such expenses shall be filed separately and will not be subjected to incentive and penalty framework. The*

approved amount by the Commission shall be trued up in the annual performance review.

Note 6: *Changes in the pay scales of employees necessitated on account of pay revision by Pay Commission or by the State Government orders shall be considered by the Commission for true-up during the annual performance review.*

(c) Xn is an efficiency factor for nth year

The Value of Xn will be determined by the Commission in the MYT order for the control period."

It is quite clear from the above that while calculating the O&M Expenses for the distribution licensee, efficiency factor of the licensee is to be applied and O&M Expenses will be calculated accordingly. The Commission has to decide the value of efficiency factor. However, no such value has so far been decided by the Commission and the same has not been taken in to account for calculating these expenses.

It is extremely important to link the expenses of the distribution licensee with the efficiency so as to incentivize his performance. Commission must therefore, decide immediate figures for efficiency factor and reflect them in the allowable costs for O&M Expenses.

7. Interest on working Capital and borrowings

As per 2.10 of true-up petition and table 8 of true up petition, DHBVNL has asked for the total interest and finance cost as Rs 1772.19 cr against the Commission approved figure of Rs 424.17 cr.

As per 8.3 (b) of MYT regulations 2012 notified by the Commission, interest and finance charges are a controllable parameter and cannot be allowed on actual basis. In the Commission's order dated 7 May 2015, the following has been provided by the Commission at 3.18:

"Interest on Working Capital

For DHBVNL, the Commission had approved Rs. 146.40 crore as interest on working capital borrowings based on the principal laid down in the MYT Regulation. Based on the same Regulations, the revised interest on working capital borrowings for the FY 2015-16 is estimated to be is Rs. 186.00 crore as per the details provided in the table 3.45."

Against this approved figure of Rs 186 Cr, the Discom has claimed interest on working capital as Rs 1102.81Cr as per table 8 of the true up petition, which can not be allowed to be passed on and must be disallowed by the Commission.

Also 12.1 of MYT regulations provide for the following:

> *"12.1 Various elements of the ARR of the generating company and the licensee will be subject to incentive and penalty framework as per the terms specified in this regulation. The overall aim is to incentivize better performance and penalize poor performance, with the base level as per the norms / benchmarks specified by the Commission."*

Further 12.2 and 12.2(a) of these regulations clearly stipulate that interest on working capital would be subjected to Incentive and Penalty frame work when it is less or exceeds the levels specified by the Commission. Also in line with 22 of these regulations on working capital, the requirement of working capital is worked out by Commission after due diligence and considering various factors and any excess cost incurred on this is to be subjected to a penalty frame work and treated accordingly.

Hence, The Commission is requested to allow the interest and finance charges to the tune of Rs 424.17 cr only and the balance may be disallowed.

8. Return on Equity

As per 2.14.1 of its true up petition, DHBVNL has claimed a return on equity of Rs 203.80 cr for FY 2015-16. The Commission had not allowed ROE to the licensee on account of their poor performance and erosion of net worth due to accumulation of losses in its various tariff orders over the years. The relevant text from the order dated 30 March 2013 are as follows:

> ***"****3.16 Return on Equity*
>
> *The accumulated losses of the two distribution licensees i.e. DHBVNL and DHBVNL have completely eroded their net worth including equity capital deployed in the business. The Commission, on several occasions, has emphasized the need for recapitalization of the state owned distribution companies and infusion of fresh equity by the State Government over and above the equity component of the annual incremental capital expenditure to be undertaken by the distribution companies to modernize and augment the distribution system to meet the increasing load and consumer base of the power utilities as well as their obligations to meet the standard of performance specified by the Commission in order to better serve the electricity consumers in Haryana. However, no progress seems to have been made in this direction. The return on equity either comes from the profit earned from the business in the form of dividend or from the accumulated reserves and surplus. In the present case there is neither any profit nor reserves and surplus. Further due to accumulated losses the equity capital stands completely eroded.*

In view of the above facts, the Commission does not consider it appropriate to allow any return on equity in the FY 2013-14, as in the past, to the distribution licensees."

Similarly in its tariff order dated 7 May 2015, the Commission had given the following ruling disallowing any RoE:

"3.1.11 Return on Equity

UHBVNL and DHBVNL have proposed true up of return on equity for the FY 2013-14 amounting to Rs. 228.24 crores and Rs. 201.48 crores respectively. The true up has to be necessarily based on the principles of approved ARR and the relevant regulations. Hence, no return on equity can considered as part of the true up process in accordance with the ARR and Tariff Order for the FY 2013-14."

Despite being denied return on equity in the various tariff orders over so many years because of poor performance of the discom, the licensee has again claimed ROE of Rs 203.80 Cr without any improvement in performance. The licensee has availed benefits like interest subsidy under NEF in the past, but the performance of the utility has not improved. It is extremely important to link the ROE with the improvement in efficiency of the licensee, failing which no ROE may be given to it. Passing on ROE without improvement in performance will put additional tariff burden on the consumers. Also regulation 20.1 of tariff regulations 2012 clearly stipulates that return on equity shall be decided by Commission on the basis of overall performance of the licensee, the extract are reproduced below :

" *20.1 The rate of return on equity shall be decided by the Commission keeping in view the incentives and penalties and on the basis of overall performance subject to a ceiling of 14% provided that the ROE shall not be less than the net amount of incentive and penalty ."*

In view of the above, we request the Commission to take a judicious decision in the matter and disallow the RoE for FY 2015-16 in consonance with its own earlier tariff orders and the provisions given in the tariff regulations.

9. Expenditure due to other debts

At 2.16.1 of its True up petition, DHBVNL has claimed an expenditure of Rs 32.49 cr on account of other debts like miscellaneous losses, unrealized surcharge, written off amounts etc.

It may kindly be noted that there is no scope for recovery of expenses on account of such under performance and incompetency on part of DISCOM and there is

clear provision in regulation regarding bad and doubtful debts as given at 64 of regulations 2012 which is produced below:

> *"64 Bad and doubtful debts shall be allowed to the extent the distribution licensee has actually written off bad debts subject to a maximum of 0.5% of sales revenue. However this shall be allowed only if the distribution licensee submits all relevant data and information to the satisfaction of the Commission. In case there is any recovery of bad debts already written off, the recovered bad debts will be treated as other income."*

DISCOM has not been mandated to waive off any kind of bad debts and instead charge the same from the consumer through its ARR. This is absolutely against any norms of commercial transactions. The waived off bad debts cannot be loaded on any consumers; it has to be suffered by Discom as a loss. This results in decrease in collection efficiency, increase in commercial losses and overall worsens the scenario of AT &C losses, which is the ultimate benchmark for the health of any distribution utility. Moreover, the honest consumer, who is diligently and regularly paying his dues has to bear the brunt of defaulters and pay for their misdeeds. Further the facility of waiving off creates a bad habit amongst consumers expecting this undue and unfair advantage every time from the government authorities and promotes wastage of energy, thereby, resulting in more distribution losses. There is no provision for waive off of any kind of electricity dues and the discom should be sternly warned that they must take recourse to all possible means of recovery against the defaulters.

As there is no justification given by licensee and there is absolutely no legal provision to sustain this claim, the Commission is, therefore, requested not to consider this expense in the ARR while truing up the costs for FY 2015-16.

10. Distribution losses & AT&C Losses

Referring to the 3.5 of the Commission's latest tariff order dated 1 August 2016, against a target of 21.35 % for AT &C Losses, the discom has indicated a figure of 25.23 % for FY 2015-16, which is an under achievement of 3.88%. Referring to the true-up petition of DHBVNL for FY 2015-16, DHBVNL has not indicated any data on the actual distribution loss and the AT &C Loss for FY 2015-16, which is the ultimate benchmark for the health of any distribution utility. This figure may even be higher than given above and DHBVN has not mentioned this figure in its true up petition despite the clear instructions of the Commission in its order dated 1 August 2016 as given below at 3.5:

"*As specified under Regulation 12 of Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012, any overachievement and underachievement of the loss trajectory and the collection efficiency specified by the Commission shall be subject to incentive and penalty framework and that the distribution licensees shall provide a statement to this effect in the mid-year performance review and True-up."*

Therefore, there is a clear cut short fall of minimum 3.88% on account of AT &C losses for the FY 2015-16 which is to be subjected to the penalty framework as stipulated in the 57.1(g) of MYT regulations 2012, which are reproduced below:

"(g) Any overachievement and underachievement of the loss trajectory specified by the Commission in the MYT order shall be subject to incentive and penalty framework specified in regulation 12. The distribution licensee(s) shall provide a statement to this effect in the mid-year performance review and true-up."

This penalty for under achievement of losses by the DHBVN is to be levied in line with Regulation 12 of the Tariff regulations reproduced below:

"(d) Only for Distribution licensee
(i) Distribution losses - Applicable when actual distribution losses fall below or exceed the level specified by the Commission
(ii) Collection efficiency- Applicable when actual collection efficiency falls below or exceeds the level specified by the Commission
(iii) Recovery of arrears - Applicable when actual recovery of arrears of previous years falls below or exceeds the targets specified by the Commission

12.3 The gains / losses shall be computed item wise separately for each business. The computations shall be based on the data submitted by the generating company and the licensees in the application for mid- year performance review / true – up and audited annual accounts corresponding to the financial year.

12.4 In case of gain

The item wise gain shall be shared between the generating company or the licensee, as the case may be, and their respective beneficiaries in the ratio of 50:50. However, the sharing ratio of 50:50 may be revised to a maximum of 60:40 at the time of true-up during mid-year performance review / true-up. The manner of utilization of the additional 10% gain shall be specified by the Commission from time to time.

12.5 In case of loss

12.5.1 The item wise losses on account of controllable factors in case of a distribution licensee shall be dealt with in the following manner:

(a) The loss to the Distribution Licensee on account of Distribution losses, as may be admitted by the Commission after prudence check, shall be dealt with as under:

(i) One-third of the amount of such loss may be passed on as an additional charge in tariff over such period as may be specified in the Order of the Commission; and

(ii) The balance amount of loss shall be absorbed y the Distribution Licensee.

(b) The item wise losses on account of other controllable factors, unless otherwise specifically provided by the Commission, shall be borne by the distribution licensee. "

Commission is therefore, requested to allow only one-third of the loss on account of losses of DHBVN to be passed on to the consumers and the loss on account of two-third losses shall be absorbed by distribution licensee in line with 12.5.1 (a) ii.

It is also prayed that the Discom must be directed to state the actual and true figures for AT&C Losses, distribution losses and collection efficiency for the FY 2015-16 immediately and Commission must give a ruling on the quantum of penalty for any shortfall on these targets.

11. Collection Efficiency

Collection efficiency is defined as ratio of total revenue realized to the total revenue billed during the year and its target has been specified in 57.2 of the regulations as under:

" 57.2 *Collection Efficiency*

The norms fo collection efficiency for the distribution licensee(s) shall be as under:

Distribution Licensee	2013-14	2014-15	2015-16	2016-17
DHBVN	98%	98.5%	99%	99%

Besides the collection efficiency, the Commission shall also monitor the recovery of arrears of previous years for which the Commission shall prescribe the targets and shall accordingly assess the performance of the licensee with regard to recovery of arrears.

Any over achievement or under achievement in respect of collection efficiency and recovery of arrears shall be subject to incentive and penalty framework as specified in regulation 12."

As seen from above, collection efficiency of 99 % was specified by the Commission for FY 2015-16 for DHBVN. However, true up petition of DHBVNL

provides no information in the petition regarding revenue billed and the collection efficiency for FY 2015-16. These figures are required to be provided by the licensee which then would be subjected to the prudence check of the Commission and any shortfall in the targets will be subjected to the penalty framework as per regulation 12 of MYT regulations 2012.

Commission is therefore, requested to direct the licensee to provide the necessary information and figures immediately to assess the performance of licensee against the targets for these controllable parameters.

12. Non Tariff Income

DHBVN has submitted a non-tariff income of Rs 224.46 Cr for the year FY 2015-16 in its true up petition. It has not included an amount of Rs 79.08 Cr collected as delayed payment surcharge against the receivables of NTI. It has claimed that since these are the receivables from the consumers that are not received in time, and as there is a delay in receiving the revenue, the Nigam has to procure additional working capital. Therefore, the revenue received on account of delayed payment surcharges is not income of the Nigam and hence may not be a part of NTI.

As per MYT regulations 2012 governing the tariff fixation, the following provisions have been laid down:-

> *"67.1 All incomes being incidental to electricity business and derived by the licensee from sources, including but not limited to profit derived from disposal of assets, rents, delayed payment surcharge, meter rent, income from investments other than contingency reserves, miscellaneous receipts from the consumers, etc shall constitute non-tariff income of the licensee;"*

The Commission also has been consistently disallowing deduction of late payment surcharges from Non tariff income time and again. The relevant extracts from the tariff order dated 7th May 2015 are placed below:

> ***"3.1.12 Non-tariff Income***
> *The Commission had approved Rs. 131.69 crore as non - tariff income for the FY 2013-14 as proposed by the UHBVNL and the actual non - tariff income as per audited accounts is only Rs. 123.11 after excluding income from treasury operation e.g. delayed payment surcharge and discount for timely payment of energy charges and therefore Rs. 9.17 crore is eligible for true up.*
> *The Commission had approved Rs. 95.8 crore as non - tariff income for the FY 2013-14 as proposed by DHBVNL and the actual non - tariff income as per the audited accounts is Rs. 173.41 crores after excluding income from treasury operation e.g. delayed payment surcharge and interest on staff loans and therefore Rs. 77.61 crore is eligible for true up."*

In view of the above justification and in line with the prevailing tariff regulations 2102 and also the Commission's own tariff orders and pure logic, Commission must disallow the claim of the Discom and the amount of Rs 79.08 Cr collected as late payment surcharge will be considered as income of the Discom and be deducted from the ARR.

Discoms Reply

1. O & M Expenses

DHBVN submits that the increase in O&M expenses is mainly on account of employee costs and terminal liabilities that are beyond the control of the discoms. Hence the same needs to be approved even because the Commission has also agreed to consider the "Terminal liabilities with regard to employees on account of changes in pay scales or dearness allowance due to inflation" as an uncontrollable parameter vide the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012. Further it is submitted that the increase in O&M Expenses are primarily on account of two factors, which is release of accumulated arrears to the employees of the Nigam and accounting of O&M expenses related to Jind. It is highlighted that the as per GoH notification dated 03rd July 2014 Jind was transferred from UHBVN to DHBVN.

2. RPO non compliance

DHBVN submits that HERC vide its Order dated 18.6.2015 has allowed Haryana DISCOMS to meet the backlog of previous years. The said order is reproduced here under:-

> Commission, under the provision of Regulation 69 of the HERC RE Regulations, 2010, allows HPPC to carry forward the backlog in respect of compliance of RPO (both non-solar as well as solar) for FY 2012-13 FY 2013-14 and FY 2014-15, on actual basis, to the FY 2015-16 and FY 2016-17. The Commission directs that minimum 50% of the shortfall in RPO compliance (solar as well as non-solar) up to the FY 2014-15 shall be met in the FY 2015-16 along with RPO for the FY 2015-16 as quantified by the Commission in its Distribution and Retail supply Tariff Order dated 07.05.2015. Further, the balance 50% of the shortfall up to the FY 2014-15 shall be met in the FY 2016-17 along with the RPO for the FY 2016-17. In case any shortfall in compliance of RPO target

(including backlog) is anticipated either in FY 2015-16 or in FY 2016-17 as per the targets given above, HPPC shall purchase requisite number of RECs during the corresponding year to meet the shortfall.

RPO Scenario for FY 2015-16

SOLAR RPO TARGETS in FY 2015-16					
	Energy consumption in Mus	SOLAR TARGETS		Actually achieved in FY 2015-16	Net Shortfall in FY 2015-16
		in (%) of energy consumption	in MUS		
1	2	3	4	5	6
*Carried forward from FY 2011-12 to FY 2014-15 to be met in FY 2015-16 & 2016-17			140		
2015-16	46731	0.75	350		
Total Target in FY 2015-16 after adding 50% backlog till 2014-15			420	127.2100	293

Non- SOLAR RPO TARGETS in FY 2015-16					
	Energy consumption in Mus	NON- SOLAR TARGETS		Actually achieved in MUs in FY 2015-16	Net Shortfall in FY 2015-16
		in (%) of energy consumption	in MUS		
1	2	3	4	5	6
*Carried forward from FY 2011-12 to FY 2014-15 to be met in FY 2015-16 & 2016-17			1993		
2015-16	46731	2.75	1285		
Total Target in FY 2015-16 after adding 50% backlog till 2014-15			2282	1172.0	1110

3. Cost of Power drawn through UI is high

DHBVN submits that it must be noted that the overdrawal of Power under UI occurs sporadically, and the overdrawal occurs only to ensure that the supply to the consumers is not intermittent in nature. However, the Nigam additionally submits that, to optimize the power scheduling and to minimize Power Purchase Cost, REC power Distribution Company Limited, a subsidiary of REC has been engaged in creation of a demand forecasting cell.

4. Employee Expense

The reply towards employee expense has already been submitted in the submissions given for the earlier points and are not repeated here for the sake of brevity.

5. A&G Expense

The details of A&G expense for FY 2015-16 are as follows:-

Administrative & General Expenses	FY 2015-16
Rent (including lease rentals)	278.88
Rate & Taxes	58.59
Insurance	32.69
Telephone charges, postage, tele-gram, telex charges & Mtc.of website of internet, new instruments	682.71
Expenditure on Internal Audit carried out by Outsource Agencies	75.21
Legal charges.	437.95
Audit fees	4.49
Consultancy charges.	631.48
Other professional charges & technical Fees	32.09
Service charges for computerization	625.06
Exp. on training to staff for computer	7.14
License fee	0.75
Conveyance & travelling expenses.	1569.33
Printing & Stationery	248.46
Electricity Charges	368.36
Other expenses like watch & ward of building, indexing & scanning of consumer case files and implementation of online computerization etc.	1368.07
Service Tax on Reverse Charge	1062.29
Cash/Secret reward paid to Vigilance and Informer to detect theft of electricity	24.01
Expenditure on GSM modems at DT meters	7.56
Other material related expenses	391.74
Total A&G Expenses	**7,906.87**
Less:- A&G Expenses Capitalized	693.78
Net A&G Expenses	**7,213.09**

The Nigam submits that the true petition was filed with the figures as in the audited annual accounts for FY 2015-16.

7. Interest on working capital expenditure

It is submitted that the true up petition has been submitted by DHBVN considering Audited Annual Accounts for the period from 1st April 2015 to 31st March 2016.

It is thereby submitted that the approved figures presented in the true up petition for FY 2015-16 are taken from the HERC Order on Distribution & Retail Supply ARR & Tariff of DHBVN for FY 2015-16, and accordingly, revised actual figures of expenditure are provided for the true up exercise in accordance with the HERC MYT Regulations 2012.

In regard to the Rs. 1172 Cr., the total interest and finance charges incurred during FY 2015-16, it is submitted that this includes the interest cost of 613 Cr on account of transfer of Jind circle related loans to DHBVN book of accounts.

8. Return on equity

DHBVN submits that as per Regulation 20.1 of HERC (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012; the rate of return on equity shall be decided on the basis of overall performance subject to a ceiling of 14% provided that the ROE shall not be less than the net amount of incentive and penalty.

Keeping same view of above regulation, DHBVN has claimed the legitimate return on equity in its tariff petition. Further, DHBVN submits that RoE is very vital source of funding a portion of Capital Expenditure planned by the Utility in order to improve the system and to achieve further loss reduction.

Also as per National Tariff Policy, 2006;

> "8.2.2. e. In cases where regulatory asset is proposed to be adopted, it should be ensured that the return on equity should not become unreasonably low in any year so that the capability of the licensee to borrow is not adversely affected."

Disallowing Return on Equity on the context of financial performance deprives the Discom of an indispensable source of internal accrual which is more important in view of the financially constrained position that makes it very difficult for it to borrow funds from the market to fund basic capital expenditure.

9. Expenditure due to other debits

The Nigam submits that the Expenditure due to other debits are as per the Audited book of accounts for FY 2015-16. The same shall be examined for allowance after prudence check by The Commission.

10. Distribution losses

The Nigam submits that as per The Commission guidance, the normative loss level of Nigam are as per the Loss trajectory in UDAY, which is as follows:

	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
AT&C loss (%)	25.22%	22.48%	18.76%	15.00%
T&D loss (%)	24.46%	21.70%	17.94%	14.14%

It is submitted that DHBVN is continuously in pursuit of reducing line loss under the operation areas. The Nigam submits that it has achieved significant loss reduction

in past few years through a bifurcation and trifurcation of Feeder Program as shown in the table below:-

Particular	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	FY (Till Dec.)
Distribution Losses (%)	23	23.47	22.1	25.08	24.21	23.6	21.26
* Losses for FY 15 has been increased due to impact of Jind Circle from UHBVN to DHBVN							

Moreover, it is submitted that, various steps have been taken by the Nigam to reduce the Losses with the specific focus on long term improvement in the power quality and reliability. Various strategies are being adopted in urban and rural areas based on their loss level. The steps taken for reduction of technical and commercial losses are as follows:-

- High loss Feeder are being identified and the Sanitization work which is under progress and is being monitored regularly. All the Circle (Op) teams have been instructed to speed up in order to complete the pending work so that the loss level would be brought down to normative level.
- Consumer Indexing for RAPDRP towns, non-RAPDRP towns, & rural areas is under progress which would help the Nigam to calculate the losses from the billing database and further pin point the losses incurred at DT level which will eventually help the Nigam to optimize its resources and making efforts towards effective loss reduction.
- Feeder Sanitization Activities are carried out geographically as: (1) Urban Feeder Sanitization & (2) Mhara Gaon Jagmag Gaon Scheme for selected RDS feeders. In both the plans, Nigam has focused on the following four major activities:
    - Improving accurate reading of energy meters via replacement of Defective, faulty, Burnt, Glass broken, no display, inconsistent, electromechanical, and old version meters.
    - Minimizing occurrence of theft of energy via relocation of meters which are located inside the Consumer premises and are prone to theft of energy.
    - Preventive measures to eliminate direct theft of energy via replacing ACSR conductors, bare conductors present in theft prone areas with LT AB Cables to eliminate direct theft of energy.

- Releasing of New Connections: Unauthorized colonies, connections with direct theft, pending connections, un-electrified households are being provided a new connection to bring them in to billing net.

11. Collection Efficiency

The Nigam submits that the collection efficiency for DHBVN in the time period of FY 2010-11 to 2016-17 been in the range of 96.89-99.26%. DHBVN emphatically states that sincere efforts are being done to improve the collection efficiency.

12. Non-Tariff Income

The Petitioner further submits that delayed payment surcharge is collected against the receivables from the consumers that are not received in time. As there is a delay in receiving the revenue, the Nigam has to procure additional working capital. Therefore, the revenue received on account of delayed payment surcharges is not an income of the Nigam, rather it's a carrying cost recovered from consumers to pay the interest on the increased portion of working capital which occur because of delay in receiving the revenue. Therefore, it is requested that the revenue from delayed payment surcharge should not be considered as income of the Nigam.

2.3.5 Comments on Additional Surcharge by M/s Faridabad Industrial Association

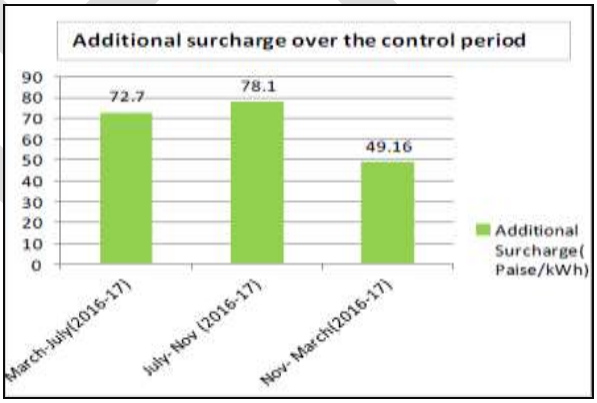
1. That the contents of proposals submitted by the Petitioner stating that under Regulation 22 of Haryana Electricity Regulatory Commissions (Terms & Conditions for grant of connectivity and open access for intra state transmission and distribution system), regulation 2012, is wrong and denied and is liable to be rejected out rightly. The Petitioner's statement that they have universal obligation to supply power for which they have entered into a long term agreement of purchase of power from various generating systems for meeting the entire demand of the State, as such, when these embedded consumers draw power from any other source under Open Access, the fixed cost of supply taken by these consumers from elsewhere is still payable to the Petitioners. Further, they have also stated that due to this they have proposed an additional surcharge of 1.09 paise per unit from these embedded consumers. In this regard, we would like to make a humble submission to this Hon'ble Commission that additional surcharge defined U/s 42 (4) has been levied in the past as under:-

(a) 2014-15 - 0.84 Paise/unit

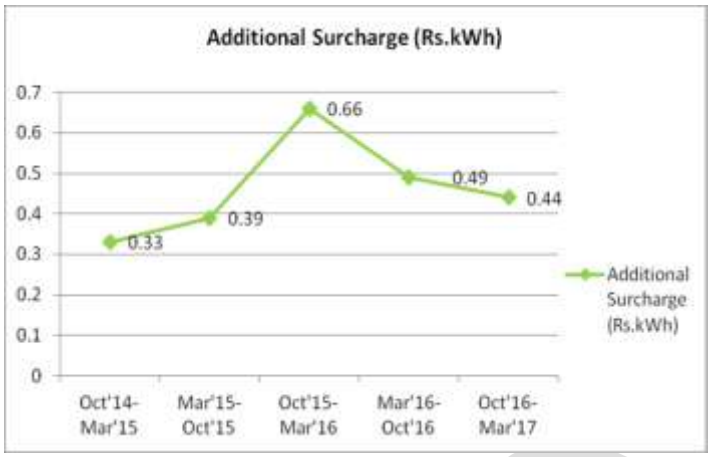
(b) 2015-16 - 0.87 Paise/unit

It is submitted that while examining the above it is very much clear that the Petitioner, on their whims and wishes, are increasing year over year all requisite charges liable to be paid U/s 42 of Electricity Act 2003 without any justification or reasoning and the Hon'ble Commission is also failing to appreciate the same which is very much clear from the order passed by the Hon'ble Commission for levy of additional charges under regulation 22 of 2012 in which they allowed the grant of additional surcharge of 84 paisa and 87 paisa vide order dated 16.11.2015 and 14.12.2016 against the spirit of their own regulations framed by them U/s 181 of Electricity Act 2003. This is nothing but a sheer abuse of power because nowhere in the regulation framed by the Commission it is being mentioned in the statute that Commission can go beyond the terms & conditions mentioned U/s 22 for granting additional surcharge to petitioner on the basis of taking normative figures which are capsulated on the basis of taking into consideration power drawn by the Respondents (consumers) for just two days i.e. Tuesday or Thursday per week.

In fact the neighboring states viz Himachal Pradesh, Odisha and Gujarat are reducing the levy of Additional Surcharge which is evident from below flowcharts .



The graph below depicts how the addition surcharge has varied over the past in Gujarat



We would like to submit that it is very much clear in Asha Sharma Vs. Chandigarh Administration that it is a settled cannon of administrating juris prudence that the wider the power conferred, more onerus is the responsibility to ensure that such power is not exceeded in excess of what is required or relevant for the case and decision.

In this regard, we would like to state that there is nowhere written in the Regulation that Hon'ble Commission can allow Discom to take for consideration for yearly average of monthly values based on monthly average for the average quantum in per slot in MW for all the 12 months by taking into consideration only power drawl for all Tuesday and Thursday because it would be travesty of justice to the consumer because if same is to be considered for the petitioner thereon because on the contrary the Hon'ble Commission should consider also pass appropriate order to petitioner to give data of every slot of each day so as not to violate Section 86 (3) of Electricity Act, that says Commission should ensure transparency and while exercising power and discharging its function further they should also consider the obligation under Section 86 (4) that says while discharging its function State Commission shall be guided by National Electricity Policy, National Electricity Plan and Tariff Policy published U/s 3 of the Act. So, therefore, we would like to submit that in case data has not been provided by the Petitioner in accordance to the law and regulation framed by Hon'ble Commission under Section 42 (5) the same should be rejected.

We strongly oppose/ object the demand of petitioner on the basis of camouflaged / un-detailed / un-transparent data without any support given to it and filed along with this petition which can justify:

a) Reason with requisite documents that all surrendered power was under avoidable obligation to suffer fixed cost

b) The entire proposal given by the petitioner is illegal because by virtue of regulation 22 /2, licensee has to calculate specifically which power was surrendered under which PPA and must further plead and prove under which PPA there was unavoidable obligation to suffer the fixed costs for the entire six months and not just for taking on their whims and wishes two days per week for calculating the power drawn by the consumer for the whole year. The methodology framed by the petitioner is nothing but sheer

   i) Abuse of power

   ii) Non application of mind and poor planning and forecast

   iii) Taking advantage of the regulations framed to help them to recover those losses which were genuine and in consonance to the law.

   iv) Violation of Section 74 of Electricity Act of not giving proper statistics, data for establishing that there claim is genuine and legal.

c) In their pleadings they have failed to establish that under which PPA the power was surrendered and whether the PPA contained a provision for the payment of fixed costs if power was not purchased.

2. That the computation in the proposal of the Petitioner is on the basis of surrender of power multiplied by an average effective per unit fixed cost; this is not what regulation 22(2) contemplates. In this regard, we would like to submit through example and want to reappraise the fact to the Hon'ble Commission how the money in lieu of this regulation is being extracted by the petitioner from the consumer. Suppose,

- There is capacity of 1000 MW out of which an open access consumer is procuring 20MW (10 MW from the Petitioner and 10 MW from Open Access)

Under the Regulation the said consumer has to pay fixed cost on the entire 20MW even when they have procured power from the outside periphery of the State by paying all requisite charges liable under Section 42 EA Act 2003 to the petitioner they have put an extra burden by way of additional surcharge which in addition to the fixed cost which the consumer is already forced to pay for the entire contract demand. So, it is very evident that the petitioner is, year after year, increasing this charge just to extract money from the consumer without any detail support of documents that can

show genuineness of his claim. The Hon'ble Commission should also appreciate that such illegal demand by the petitioner is increasing day by day because their system of planning and forecast of power purchased since they have failed to effectively strengthen their system and plan/ forecast their purchases in spite of having requisite data of all 96 slots from each OA consumer. ***It is the intention of petitioner*** to make this power unviable to all embedded consumers. This is nothing but a mockery to the judicial process of law.

3. There is no pleading in the petition by the petitioner that what steps are taken by the Petitioner to sell the power in the market and what realization if any could have been recovered from the sale.

4. It is submitted there is no pleading in the proposal on the basis of what or surrendered power was under unavoidable obligation without any pleadings or details.

5. That Commission also failed to appreciate in the last order passed by the Commission on 14.12.2016 that no requisite data as required by the regulation of slot wise data for entire slots by quantum for the period of 6 months were provided and even now the petitioner have not filed the data as required under regulation. In case, Hon'ble Commission continues on the same system while granting additional surcharge to the Petitioner vide this petition, then Commission should also consider what steps have been taken from last three to four years by the Petitioner so that poor planning / insufficient forecast/ in competency to deal with the power purchase and scheduling of the same by the Petitioner can go on and till how much time can Respondent / consumers need to suffer the pain and whether they can survive in the same race in the long run. It is evident that if these types of charges are granted year over year without any justification then the process of transparency which is travelled under section 86 (3) of EA Act will be curtailed and consumer will have to shift their industries and other ancillary services from the State of Haryana which will cause irreparable loss of Revenue to the State and also create unemployment to an extent of 10 lacs to 20 lacs people directly or indirectly associated with these consumers.

6. While examining the current proposal of the Petitioner it is very much evident that they have not given any detail of back down of power and reason of the same on account of open access consumers. They are just playing on gaming

tactics to extract hard earned money of the consumer and have filed this petition without any justification and documents supporting the same so the same is liable to be rejected out rightly.

7. While examining the current proposal of the Petitioner it is very much evident that they are gradually increasing all the charges i.e. CSS, FSA, Fixed Cost, Addl. Surcharge on the consumers without any base and support and just try to curb the availment of open access power which consumer are getting in Haryana. Commission should also appreciate that above referred para 2 (a) we just try to give an example how a consumer is being over burdened by the Petitioner on pretext of fixed cost because in case these additional surcharge is being gradually increased, year after year, clear shows that petitioner is incompetent and inefficient. We have full faith in the competency and power of Hon'ble Commission and request them to give suo moto remedy for granting back the fixed cost which the petitioner are charging on the entire quantum of purchase irrespective if the same is purchased through Petitioner or other person because petitioner are charging requisite charges like CSS, Additional Surcharge from the consumer for the same power with fixed cost also which is nothing but contrary to law and principle of natural justice and against article 14 of Indian Constitution.

<u>Discoms Reply</u>

1. It is submitted that The Section 42 of the Electricity Act, 2003, provides for the levy of charges on the open access consumers. The relevant excerpts of the Electricity Act has been given below:

"(4) Where the State Commission permits a consumer or class of consumers to receive supply of electricity from a person other than the distribution licensee of his area of supply, such consumer shall be liable to pay an additional surcharge on the charges of wheeling, as may be specified by the State Commission, to meet the fixed cost of such distribution licensee arising out of his obligation to supply"

Also, as per Chapter VI- of the Haryana Electricity Regulatory Commission (Terms and conditions for grant of connectivity and open access for intra-State

transmission and distribution system) Regulations, 2012, open access consumers shall be liable to pay following charges:

"19. Transmission charges and wheeling charges

20. Scheduling and system operation charges.

21. Cross subsidy surcharge.

22. Additional Surcharge.

23. Standby power and standby charges for drawl of power by open access consumer from distribution licensee.

24. Imbalance Charge.

25. Reactive Energy charges

In order to ensure that only such power surrendered is taken for calculating additional surcharge, which corresponds to power stranded because of open access consumers, the lower quantum of open access power per slot and surrendered power for corresponding slot is taken as quantum of the stranded power for slot due to open access.

Further, the Hon'ble Commission in its Order dated 14.12.2016 has mentioned that the obligation of the distribution licensee(s) to pay fixed cost of power purchase under long term Power Purchase Agreements has been and continues to be stranded. The relevant extract of the Order has been given below:

"… it is conclusively established, from the data submitted for the 2nd half of the FY 2015-16 that the obligation of the distribution licensee(s) to pay fixed cost of power purchase under long term Power Purchase Agreements has been and continues to be stranded. Hence, the Commission Orders that the Additional Surcharge in vogue i.e. Rs. 0.87/Unit shall continue to be in effect till such time the same is revised / amended by the Commission."

Hence, it is clear that Discoms have been levying Additional Surcharge in accordance with the Regulations duly approved by the Hon'ble Commission.

With regards to contention of non-submission of requisite data, it is submitted that the Licensee in its petition for approval of Additional surcharge filed vide Memo No. Ch-02/GM/RA/N/F-15/Vol-IX dated 24.01.2017, have submitted the calculation of additional surcharge based on 100% data (slot wise) of all days in first half of FY 2016-

17 i.e. April-16 to September-16. Further, Licensee has uploaded the above data on its website also.

Since the Petitioner has a universal obligation to supply power to all the consumers, they have to enter into long term agreements for purchase of power from various generating stations for meeting entire demand of the State. As such, when these Open Access consumers draw power from any other mode under Open Access i.e. through collective transaction or bilateral transaction, the fixed cost of such stranded power is still payable by the Petitioner, while making it a stranded capacity for the petitioner.

The Discoms have calculated slot wise stranded power due to open access and also the total open access power availed in that particular time slot. Further, based on slot-wise quantum eligible for calculation of Additional Surcharge and slot wise total open access power availed, the corresponding slot wise units have been calculated for all the days in first half of FY 2016-17 and thereafter the petitioner has calculated total units in MU, which corresponds to the stranded power due to Open Access and total Open Access units availed for the first half of FY 2016-17. The Hon'ble Commission in its Order dated 14th December, 2016 has also approved the methodology adopted by the Licensee for computation of stranded power on account of open access consumers. The relevant extract is reproduced below:

> *"b) That due to the change in the declared capacity of the inter-State generator during the day, the change in entitlement of the State from that particular Generator, is automatically accounted for.*
>
> ***c) The above process adopted by the Petitioner for calculating the backing down quantum of power has been checked on sample basis and found to match with the data supplied. It has been further observed that the generating units which are not on bar due to less demand have not been considered and only the running units backing down has been considered for arriving at the stranded cost of power for determination of additional surcharge. (Emphasis Added)***

A mere perusal of the above para(s) establishes the fact that only the power which has been backed down due to Open Access has been considered for calculation of additional surcharge

Further, the contention of the stakeholder regarding increase in fixed cost is misleading as there is annual increase in Fixed Cost allowed to be recovered by power generators on account of increase in inflation and various Orders of Hon'ble APTEL/CERC thereby in-turn leading to increase in Additional Surcharge.

2. As per the section 42 of the Electricity Act, 2003 a Discom is required to maintain an effective and efficient distribution system. The relevant excerpts of the Electricity Act, 2003 has been mentioned below:

> *"It shall be the duty of a distribution licensee to develop and maintain an efficient, co-ordinated and economical distribution system in his area of supply and to supply electricity in accordance with the provisions contained in this Act."*

In order to cater the demand or load, utility has to develop a healthy distribution network keeping in view the maximum, minimum load and the load which is likely to come in near future. The Demand charges cover electric utilities' fixed costs of providing a certain level of energy to their customers.

The Discoms submit that the open access is aimed to enable the consumer to take advantage of power available at competitive rates in comparison to the Discoms, while protecting the financial interests of the Discoms through cross subsidy surcharge and additional surcharge. The provision of Open Access on Transmission and Distribution on payment of legitimate charges to the Utility has been introduced in the Electricity Act in order to enable number of players utilizing these capacities and transmit power from generation to the load centre. This will mean utilization of existing infrastructure and easing of power shortage with no losses to be borne by the power Discoms, who shall remain revenue neutral towards the movement of consumers from the licensee to a second source of power under the provision of open access.

Additional Surcharge is defined as per unit of charge an open access consumer is obligated to pay in order to meet the fixed cost of Power purchase of the distribution licensee arising out of his obligation to supply.

Further, Hon'ble APTEL in the appeal No. 59 of 2013 (Maharashtra State Electricity Distribution Company Limited vs. Maharashtra Electricity Regulatory Commission & Anr.) and Appeal No. 116 of 2013 (Maharashtra State Electricity Distribution Company Limited vs. Maharashtra Electricity Regulatory Commission &

Ors.) has passed the judgement on Levy of Fixed charges from Open Access consumers. The relevant extracts of the Judgement has been reproduced below

> *"**The open access consumer who maintains full contracted demand with the Distribution Licensee is liable to pay for demand charges which should cover the fixed cost of the Distribution Licensee.** In case the Distribution Licensee is not able to recover full fixed cost for the power arranged for such consumer then the Distribution Licensee has liberty to put up a case with supporting Appeal no. 59 of 2013 and Appeal no. 116 of 2013 Page 40 of 41 documents for the recovery of same for consideration of the **State Commission to appropriately compensate the Distribution Licensee so that the burden is not passed on to other consumers**. Further, the law has provided a remedy for recovery of stranded cost of the Page 22 of 37 distribution licensee out of its obligation to supply to an open access consumer. Therefore, **if the Appellant Distribution Licensee finds that it has to bear same fixed cost (stranded cost) due to its obligation to supply to the open access consumer, it can approach the State Commission with supporting data and claim Additional Surcharge** in its ARR/tariff. Whenever such claim is raised by the Appellant, the State Commission shall consider the same and decide as per law."(**Emphasis Added)***

A perusal of the aforesaid mentioned facts amply clears that the Demand charges and Additional Surcharge are not correlated in any manner and Demand charges are recovered on account of investment in the Distribution network made by the licensee. Whereas, additional surcharge is meant to compensate Discoms for fixed cost of the stranded capacity due to Open Access Consumers and is borne by the licensee.

3. The average approved power purchase cost of the Discoms for the FY 2015-16 was Rs 4.05 per unit. Further, Nigam is scheduling power as per the Merit Order Dispatch which means that usually the power which is backed down is costlier than the average power purchase cost. However, the average market clearing price for FY 2015-16 is Rs 2.73 per unit.

It is may be noted since the market clearing price is lower than the cost of power purchase, in order to minimize the trading loss, licensee is left with no other option except to back down the power.

Further, in order to optimize power purchase cost and give benefit to consumers, the licensee has introduced Concessional Tariff for HT Consumers for the additional consumption during the night hours i.e. 22:00 Hrs to 06:00 Hrs.

4. It is reiterated that in order to ensure that only such power surrendered is taken for calculating additional surcharge, which corresponds to power stranded because of open access consumers, the lower quantum of open access power per slot and surrendered power for corresponding slot is taken as quantum of the stranded power for slot due to open access.

5. The contention of the stakeholder regarding incomplete data is wrong and misleading. The fact that the Licensee has submitted all the relevant data has been taken in record by the Hon'ble Commission in its Order dated 14th December, 2016. The relevant extract of the Order is reproduced below:

> *"iii)* ***Accordingly, the DISCOMs have filed the requisite data****, which has been examined as under:*
>
> *a)* ***That the Petitioner has worked out backing down quantum day-wise, slot-wise for the corresponding six months of FY 2015-16,*** *from the implemented schedule and the entitlements as per their last revision, for the particular day, as available on the NRLDC/SLDC websites (www.nrldc.org.in and www.haryanasldc.org.in). (****Emphasis added)***

Further, to optimize the power scheduling and to minimize Power Purchase Cost, REC Power Distribution Company Limited, a subsidiary of REC has been engaged for developing a demand forecasting system.

6. The Discoms in its petition for approval of Additional surcharge filed vide Memo No. Ch-02/GM/RA/N/F-15/Vol-IX dated 24.01.2017 have submitted the calculation of additional surcharge based on 100% data (slot wise) of all days in first half of FY 2016-17 i.e. April-16 to September-16. Further, Licensee has uploaded the above data on its website also.

Further, in order to ensure that only such power surrendered is taken for calculating additional surcharge, which corresponds to power stranded because of open access consumers, the lower quantum of open access power per slot and surrendered power for corresponding slot is taken as quantum of the stranded power for slot due to open access

7. The Licensee has been computing additional surcharge in line with the MYT Regulations 2012. Further, all the charges like Cross Subsidy Surcharge, Fuel Surcharge Adjustment, Fixed Cost, Additional Surcharge etc are being levied on the consumers only after the approval of Hon'ble Commission.

Further, as explained in the earlier paragraphs also, Demand charges and Additional Surcharge are not correlated in any manner and Demand charges are recovered on account of investment in the Distribution network made by the licensee, whereas, additional surcharge is meant to compensate Discoms for fixed cost of the stranded capacity due to Open Access Consumers and is borne by the licensee.

Commission's View

The Commission has taken note of the objections filed by the FIA and DHBVNL's reply thereto. It is observed that the objections are more or less similar to those raised by M/s JSL. The Commission has dealt with the issues, in line with the relevant Regulations, at appropriate paragraphs of this Order. The Commission would like to assure the Interveners that all the directives issued from time to time are monitored and compliance reports are being sought. The Commission has taken note of the suggestion that Open Access consumers should also be allowed to install solar system under net metering Regulations to avail incentive allowed therein. The Commission shall examine the issue and its implications at the time of amending the said Regulations. Regarding wheeling charges payable y the Open Access consumers the Commission observes that none of the stakeholder including the power utilities have come up with a concrete proposal or methodology to address the purported aberrations. The stakeholders may submit a proposal regarding the same for consideration of the Commission so that the same could be considered in the next ARR/Tariff Order separately. As far as efficiency factor built in the computation of O&M expenses i.e. A&G and R&M is concerned the same has not been done as the expenses on these accounts have been below the norm. Hence, while carrying out true-up exercise under MYT Regulations, the benefit of lower expenses vis-a-vis the norm is automatically passed on to the consumers. Further, the Commission has noted the concern raised by the intervener regarding non-implementation of Standard of Performance (SoP) Regulations and compensation to be paid automatically to a consumer in case of any deficiency vis-a-vis guaranteed SoP. The Discom, on the basis of Section 57(2) of the Electricity Act, 2003, has replied that the Commission will

have to determine on the basis of allegation that a particular SoP has been violated. The Commission has perused the reply filed by the Discom and observes that Section 57(2) of the Electricity Act, 2003 empowers the SERCs to specify the SoP and compensation thereto. Accordingly, the SoP as well as scale of compensation, wherever applicable, has been decided by the Commission by framing Regulations i.e. Haryana Electricity Regulatory Commission (Standards of Performance of the Distribution Licensees) Regulations, 2004 including its subsequent amendment. It is implied that the Discoms either of its own knowledge or upon written claim filed by any eligible consumer, is liable to pay compensation as has been determined by the Commission. In case, this is not done by the Discoms, it constitutes non compliance of the said Regulations. The Commission directs the Discoms to upload all the relevant SoP data including reliability indices on their respective websites without any further loss of time. The Commission shall address the issue of non-compliance, if any, separately.

2.3.6 Objection filed by Sh. Pankaj Bhalotia

1. A separate tariff structure for prepaid electricity consumers in place of 5% rebate:

That I have been writing and requesting from quite some time to the Commission that current tariff structure of domestic supply category consumer, which is said as telescopic in nature, is neither maintainable nor implementable in a prepaid electricity meter. So instead of having 5% rebate in tariff for prepaid meter consumers, I request Commission to please have separate tariff structure for prepaid electricity consumers or to have such tariff structure for a domestic supply category consumer which can and is maintainable and implementable in a prepaid electricity meter. A Prepaid Electricity Meter does not work like that firstly it will see consumption is less than 100 or more than 100 and then start charging accordingly. The Category II and Category III of current domestic supply tariff IS NOT maintainable and implementable in a prepaid electricity meter.

So requesting again to the Commission to either (a) prescribed separate tariff structure that is implementable and maintainable in a prepaid electricity meter, instead of 5% rebate in tariff, or (b) design such domestic supply category tariff which is with current 5% rebate is implementable and maintainable in a prepaid electricity meter.

2. Provisions, Rules and Regulations of applicability of Municipal Tax and Electricity Duty:

The Commission while announcing tariff for FY 2017-18, in the footnotes of tariff order, should also mention provisions, rules and regulations of applicability of Municipal Tax and Electricity Duty on various consumers. The Municipal Tax and Electricity Duty may not be applicable and payable by all consumers in all cases and situation. So to not to get charge excessively in the name of Municipal Tax and Electricity Duty when not applicable and payable, I would suggest that the Commission should also describe clearly in tariff structure, the rules and regulations of applicability of Municipal Tax and Electricity Duty and in what all cases both are payable as well as not payable.

3. A separate tariff structure for consumers taking supply through Independent Feeder:

Should there not be separate tariff structure or a discount/ rebate for a single point consumer and Bulk supply consumer who is taking supply of electricity from Discoms of the State through Independent Feeder?

In my view a lower tariff should be payable by a single point consumer and bulk supply consumer who is taking supply of electricity through independent feeder from discons of the state as Discoms play no role in addressing and redressing grievances, issued, concerns for supply of electricity through independent feeder from point of supply till the place of consumer. Is the discom not saving its operational and other associated cost for independent feeder in same regard, which it should have incurred had the supply not through independent feeder in same regard which it should have incurred had the supply not through independent feeder? And accordingly should pass on all such saving to a single point consumer and bulk supply consumer who is taking supply of electricity through independent feeder from discoms of the state in the form of either lower tariff or by way of discount/ rebate.

4. Applicability of Fuel Surcharge Adjustment from first month itself of a financial year:

Will Fuel Surcharge Adjustment be payable from first month itself of new financial year starting from April 2017 onwards? When commission approves tariff for a financial year does that tariff is not determined and approved by the commission on the basis of right projection of cost and revenue, which results into FSA become payable from first month itself of a financial year? It is understandable that projection may go

wrong at later stage of a financial year due to various unforeseen circumstances but not at first month itself of a financial year and also not at the time of approving tariff of a financial year.

5. Can Fuel Surcharge Adjustment be merged with tariff and not to be payable separately:

I would suggest commission to consider this proposal of merging and combining of FSA with tariff and approve tariff accordingly for FY 2017-18 with clearly mentioning in tariff order that no FSA is applicable and payable for tariff mentioned in tariff order. This will I think save from many of ongoing concern and issue related to FSA.

Discoms Reply

1. A Separate Tariff Structure for prepaid electricity consumers in place of 5% rebate

DHBVN Reply

DHBVN is not authorized to decide the tariff of consumers who are exclusively associated through prepaid meters. The powers of the same are conferred upon the Commission and the related matter can be taken up with the Commission.

2. Provisions, Rules and Regulations of Applicability of Municipal Tax and Electricity Duty

DHBVN Reply

It is hereby submitted that the Municipality Tax (or M Tax) currently being levied on the electricity consumers is in accordance with the Notification issued by Haryana Government dated 16th May, 2000 and further, it is collected by the electricity utility on behalf of the state municipality as a tax and is handed over to the state municipality thereon. Further, to clarify the electricity distribution utility DHBVN plays no role in deciding the amount of M Tax to be levied or on whom to be levied rather its role is limited to collection of M Tax. The Haryana Government Notification dated 16th May, 2000 and the Sales Circular No. D-23/ 2000 pertaining to the Government Notification is attached along for your reference.

However it is submitted that the announcing of tariff determination and review of various charges including rebate is prerogative of the Commission. DHBVN sells energy and collects various charges as determined by Commission.

DHBVN welcome the suggestion of objector and request The Commission to take appropriate view on the same while approving the tariff order for FY 17-18.

3. A Separate tariff structure for consumers taking supply through Independent feeder

DHBVN Reply

DHBVN is not authorized to decide the structure of tariff to provide a different tariff to the consumers who have opted supply through Independent feeder, if they are taking supply through independent or any sort of who are exclusively associated through prepaid meters. The powers of the same are conferred upon the Commission and the related matter can be taken up with the Commission.

However it is pertinent to mention that as per tariff order dated 01.08.2017, in case of single point supply as per HERC (Single Point Supply to Employers' Colonies, Group Housing Societies and Residential or Commercial cum Residential Complexes of Developers) Regulations, 2013, Bulk Supply (Domestic Supply) tariff shall be applicable. A rebate of 4% in case of supply at 11 kV and 5% in case of supply at higher voltage in the energy consumption as recorded at Single Point Supply meter shall be admissible.

4. Applicability of Fuel Surcharge adjustment (FSA) from first month itself of a financial year

DHBVN Reply

It is submitted that the FSA is legitimate expense this has been computed and submitted before the Commission on the following HERC regulation 66.

Commission predominately check the submission made by DHBVN and approve accordingly.

"...66. FUEL AND POWER PURCHASE COST SURCHARGE ADJUSTMENT (FSA)

66.1 The distribution licensees shall recover FSA amount on account of increase in fuel and power purchase costs from the consumers on a quarterly basis so as to ensure that FSA accrued in a quarter is recovered in the following quarter without going through the regulatory process i.e. FSA for the quarter "July to September" is recovered in the following quarter "October to December".

66.2 FSA shall be calculated only in respect of approved power purchase volume including short term power purchase cost, if any, for the relevant year from all approved sources. Drawl of power under UI mechanism, if any, shall be allowed only when it is not in violation of grid discipline and shall be subject to a price cap of average revenue realisation from all consumer categories for that year.

Average revenue realisation = (Total revenue assessed for electricity supply in Rs + Government Subsidy in Rs) / Total sales in Units.

66.3 For the purpose of recovery of FSA, power purchase cost shall include all invoices raised by the approved suppliers of power and credits received by the distribution licensees during the quarter irrespective of the period to which these pertain for any change in cost in accordance with tariff approved by any regulator/ government agency mentioned in regulation 59.4. This shall include arrears/refunds, if any, not settled earlier. In case data of the last month in a quarter is not available for calculating FSA to be levied in the following quarter, the licensee shall use an estimate based on available data of the first two months of the quarter. On availability of the actual figures, the difference on this account shall form part of FSA of the subsequent quarter. If the actual data for any quarter is not made available by the licensee before the end of the following quarter for this adjustment, the FSA finally allowed for that quarter based on actual figures supplied after the prescribed date shall be limited to the earlier estimated amount or the amount based on the actual figures, whichever is lower.

66.4 In case of negative FSA, the credit shall be given to the consumers by setting off the minus figure against the positive figure of FSA being charged from the consumers. In other words, credit of FSA shall be given only against FSA being charged so that the base tariff determined by the Commission remains unchanged.

66.5 Only the allowed percentage of transmission and distribution losses for the relevant year as per the approved ARR shall be taken into account for working out FSA.

66.6 The amount of FSA shall be recovered by each distribution licensee by charging a uniform FSA (per kWh) across all consumer categories in his area of license.

66.7 For moderation purposes, the recovery of per unit FSA shall be limited to 10% of the approved per unit 'average power purchase cost' or such other ceiling as may be stipulated by the Commission from time to time. For calculating FSA, variations in quarterly purchase volume from an approved source are allowed subject to an overall ceiling of annual approved volume from that source. In case a portion of the FSA for any quarter is not recovered due to

the ceiling of 10%, the under recovered amount shall be added to the FSA for the next quarter.

66.8 Per unit rate of FSA (paisa/kWh) shall be worked out after rounding off to the nearest paisa;

66.9 The distribution licensee shall submit details relating to FSA recovery to the Commission for each quarter in the following format by the end of the following quarter.

Table 1: Methodology for FSA Calculation as per HERC

Sl No	*Description*
(i)	*Approved power purchase volume from approved sources (MU)*
(ii)	*Approved power purchase cost (Rs. million)*
(iii)	*Actual power purchase volume (MU)*
(iv)	*Power purchased (MU) from sources not covered under regulation 66.2 giving source wise details and in case of UI the frequency at which UI drawls were made. (disallowed power purchase)*
(v)	*Actual cost of power purchase from all sources except (iv) (Rs. million)*
(vi)	*Actual cost of disallowed power purchase relating to (iv)(Rs. million)*
(vii)	*Total FSA estimated to be recovered for the quarter(Rs. million)*
(viii)	*FSA per unit (Rs/kWh)being recovered during the following quarter*
(ix)	*Actual FSA recovered/estimated to be recovered out of estimated FSA till the end of the following quarter (Rs. million)*
(x)	*Under/ over recovered FSA (vii-ix) (Rs. million)*
(xi)	*Approved sales (Consumer category wise / month wise) for the quarter (MU)*

Note:

1. All the source-wise details should be supported with requisite documentary evidence / invoices raised by the generators / suppliers of the power.

2. Actual sales to AP consumers are to be calculated in accordance with the methodology approved by the Commission in the ARR for the relevant year. ..."

Therefore, it is submitted that Nigam has claimed FSA as per the FSA regulations, notified by HERC (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012 on a quarterly basis. Nigam submits the desired workings along with data pertaining to currents FSA as well as for FSA true up, as defined under the regulations.

It is hereby submitted that Nigam only levies the FSA to be recovered from the consumers in line with the methodology notified in HERC (Terms and Conditions for

Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012.

Moreover, the Nigam further submits that through HERC Order dated 03.03.2017, the Commission, orders that the recovery of these FSA's shall continue at the rate determined above till such time i.e. 65 paise per unit from 01.04.2017 to 30.06.2017 and @ 37 paise per unit thereafter till the total amount as determined in the present Order is fully recovered.

5. Can FSA be merged with tariff and not to be payable separately

DHBVN Reply

DHBVN submits that the very purpose of providing FSA is to compensate the Distribution Licensee for the increase in power purchase costs during the year to keep its financial liquidity intact. In practice, a generator has to make payment for the fuel. Any increase in fuel price will have to be compensated else the generator would not be in position to procure enough fuel to generate. Therefore, the DISCOMs who procures power from the Generators, they would have to pay the generators the increased costs. If DISCOMs are not compensated during the period, their liquidity would be affected.

A part of power procured by the distribution company comes from the Central Sector Generating Companies whose tariff is regulated by the Central Commission and the State owned Generation Companies whose tariff is regulated by the State Commissions. The Commission in its MYT Regulations has already provided a formula for FSA.

Thus from the aforementioned statement, it is evident that merging/combining FSA with tariff would not be a practical solution. However, to clear the air over FSA, HERC through its order dated 03.03.17 has ordered that the recovery of these FSA's shall continue at the rate determined above till such time i.e. 65 paise per unit from 01.04.2017 to 30.06.2017 and @ 37 paise per unit thereafter till the total amount as determined in the present Order is fully recovered.

Commission's View

The Commission has taken note of the objections / suggestions filed by Shri Pankaj Bhalotia and DHBVNL's reply thereto. As far as separate tariff structure for electricity consumers prepaid meter and for consumers on independent feeders are concerned the Commission would consider seeking proposal, with supporting data

including revenue implications, from the Discoms while considering tariff design in future. At this stage, in the absence of requisite information and without holding a wider public consultation including those consumers who are likely to be impacted from such change in the tariff design, it may not be appropriate to accept and proceed with the suggestions of the intervener. On the issue of FSA, it is observed that the Commission has already issued a separate Order dated 3.03.2017 including the date(s) from which the same shall be implemented i.e. 65 paise per unit from 01.04.2017 to 30.06.2017 and @ 37 paise per unit thereafter. However, as FSA is dynamic in nature and may vary from quarter to quarter, while the tariff as per section 62(4) of the Electricity Act, 2003 cannot be ordinarily amended more frequently than once in any financial year, the Commission believes that merging past FSA(s) with tariff may not serve much purpose. Hence, the Commission, as per the Ibid Act considers it appropriate to deal with the FSA in line with the Regulations occupying the field also mentioned by the Nigam in its reply. Further, the Commission observes that M.T. and E.D. is being levied as per notifications of the State Government from time to time as also submitted by DHBVNL, hence, these are beyond the statutory powers of this Commission.

2.3.7 Objection filed by IEX

1. Discrepancies in Calculation of Additional Surcharge:

The Petitioner has requested for approval of Additional Surcharge @ Rs. 1.09 Rs./Unit for first half of FY 2016-17 in line with the methodology devised by the Honorable Commission in its order dated 01.08.2016. However, on perusal of the Petition following deviations have been observed against the methodology adopted by the Commission in its order dated 01.08.2016

a. The average quantum of power to be considered for Additional Surcharge has not been used instead total quantum has been used.

b. Effective approved fixed cost considered for calculation of Additional Surcharge is considered on higher side i.e. 1.29 Rs./Unit however the Honorable Commission in its order dated 01.08.2016 has considered 0.92 Rs./Unit which is approved for FY17.

Accordingly, considering the above observations, the following revised calculation of Additional Surcharge may be considered by the Honorable Commission:

Table: Details of backing down owing to Open Access and Open Access units

Months	Average Quantum to be considered for Additional Surcharge in MW	Total Quantum to be considered for Additional Surcharge in MU	Average Quantum of Total Open Access m MW	Total Quantum of Open Access in MU
Aril-16	252.77	181.99	294.05	211.71
May -16	256.81	191.06	297.52	221.36
June-16	238.45	171.69	309.32	222.71
July-16	290.96	216.48	341.07	253.75
August-16	59.23	44.07	82.41	61.32
September-16	302.56	217.85	333.31	239.98
Grand Total	1400.78	1023.14	1657.68	1210.83
Monthly Average	233.46	170.52	276.28	201.81

Table 2: Calculation of Additional Surcharge for first half of FY 2016-17

Particulars	Units	Amount
Total Units (MUs) of Power to be considered for Additional Surcharge	in MU	170.52
Effective Approved Fixed Cost considered for Evaluation of Additional Surcharge	Rs/ Unit	0.92
Total Additional Surcharge for the first half of FY 2016- 17	In Rs Million	156.88
Open Access Units estimated (considering same open access scenario as in FY 2016-17)	in MU	201.81
Per Unit Additional Surcharge applicable on the same Quantum of Open Access	Rs/ Unit	0.78

2. Adjustment of demand/fixed Charges in Calculation of Additional Surcharge:

a. It is submitted that on the issue of adjustment of demand/fixed Charges paid by Open Access consumers in the calculation of Additional Surcharge, The Commission vide its order dated 16.11.2015 held as follows:

> "The Commission has also considered the submission of the Objectors that Open Access Consumers who are also the Consumers of the Discoms are paying fixed cost / Demand Charges as per the tariff in vogue on their entire sanctioned contract demand besides paying transmission and wheeling charges on the Open Access power. The Commission is of the view that in the present case, the limited issue is to determine Additional Surcharge based on stranded PPAs due to Open Access Consumers. Hence, in the next ARR/Tariff proceedings the Objectors may raise the issue of wheeling charges to be paid by the embedded Open Access Consumers on the power brought from sources other than the Discoms as they are already paying partly or wholly the transmission / wheeling charges as per the tariff Order and the wheeling charges are to be paid by the non- embedded Open Access Consumers. The Commission shall examine the submissions on merit and relief if any, shall be considered accordingly."

b. In view of the above findings of the Commission, some consumers raised this issue in the ARR proceedings for FY 16-17 same is recorded at para 5.1 of Tariff order dated 01.08.2016. Relevant extract of Tariff Order is reproduced below:

> *"Accordingly, the wheeling charges payable by the open access consumers work out to Rs. 0.71/kWh. The Commission has noted that some embedded open access consumers during the public hearing on the determination of additional surcharge had submitted that they need to be given some relief in the levy of wheeling charges for open access power as they are also paying wheeling charges in the form of fixed charges through the tariff. The Commission observes that while working out the wheeling charges as above, only the technical losses have been considered whereas the Discoms have submitted that there should be 'in kind' adjustment of scheduled open access power for the approved distribution losses (technical + commercial) as is being done for transmission losses . Accordingly, if the wheeling charges are worked out considering the approved distribution losses, these will work out to be on the higher side. Given the rival contentions and lack of clarity on this issue, the Commission, has considered it appropriate to continue levy of wheeling charges as per the past practice."*

Therefore, though The Commission noted the said issue but no direction was issued in Tariff Order regarding relief to the embedded Open Access Consumers with respect to Wheeling Charges against demand/fixed charges paid by them.

c. Further, it is submitted that The Commission vide its order dated 01.08.2016, while determining Additional Surcharge reiterated the findings of its order dated 16.11.2015 however no relief was provided in Additional Surcharge against demand/fixed charges paid by the embedded open access consumers to distribution licensee.

In view of the above contentions, the Honorable Commission is humbly requested to resolve the matter of adjustment of demand / fixed charges paid by the open access consumers against Additional Surcharge or Wheeling Charges. The Honorable Commission is further requested to decide on this issue in the present ARR proceedings of FY 2017-18 so that appropriate relief may be passed on to the open access consumers in the State of Haryana.

Discoms Reply

1. Replies to objection on discrepancies in calculation of Additional Surcharges

Regulation 22 of the “Haryana Electricity Regulatory Commission (Terms and conditions for grant of connectivity and open access for intra-State transmission and distribution system) Regulations, 2012 provides as under:

"Additional Surcharge. –

(1) An open access consumer, receiving supply of electricity from a person other than the distribution licensee of his area of supply, shall pay to the distribution licensee an additional surcharge in addition to wheeling charges and cross-subsidy surcharge, to meet out the fixed cost of such distribution licensee arising out of his obligation to supply as provided under sub-section (4) of Section 42 of the Act.

(2) Provided that such additional surcharge shall not be levied in case open access is provided to a person who has established a captive generation plant for carrying the electricity to the destination of his own use.

(3) This additional surcharge shall become applicable only if the obligation of the licensee in terms of power purchase commitments has been and continues to be stranded or there is an unavoidable obligation and incidence to bear fixed costs consequent to such a contract. However, the fixed costs related to network assets would be recovered through wheeling charges.

(4) The distribution licensee shall submit to the Commission, on six monthly basis the details regarding the quantum of such stranded costs and the period over which these remained stranded and would be stranded. The Commission shall scrutinize the statement of calculation of such stranded fixed costs submitted by the distribution licensee and determine the amount of additional surcharge.

(5) Provided that any additional surcharge so determined shall be applicable to all the consumers availing open access from the date of determination of same by the Commission.

(6) The consumers located in the area of supply of a distribution licensee but availing open access exclusively on inter-State transmission system shall also pay the additional surcharge.

(7) Additional surcharge determined on per unit basis shall be payable, on monthly basis, by the open access customers based on the actual energy drawn during the month through open access".

Since the Petitioner has a universal obligation to supply power to all the consumers, they have entered into long term agreements for purchase of power from various generating stations for meeting entire demand of the State. When these Open Access consumers draw power from any other source under Open Access i.e. through collective transaction or bilateral transaction, power to that extent gets stranded but the fixed cost of such stranded power is still payable by the Petitioner.

The Discoms, in compliance to the directive of The Commission's Order dated 14.12.2016 filed petition under section 42 of the Electricity Act 2003 read with Regulations 22 of Haryana Electricity Regulatory Commission (Terms and conditions for grant of connectivity and open access for intra-State transmission and distribution

system) Regulations, 2012 vide Memo No. Ch-02/GM/RA/N/F-15/Vol-IX dated 24.01.2017 for seeking approval of Additional Surcharge. In the said petition the Discoms have submitted the details of working out Additional Surcharge applicable for first half of FY 2016-17 to be recovered from open access consumers. The methodology for computation of Additional Surcharge as explained in the Petition is reiterated below:

i. In order to ensure that only such power surrendered is taken for calculating additional surcharge, which corresponds to power stranded because of open access consumers, the lower of the two ie quantum of open access power drawn in a slot and the quantum of surrendered power in that slot is taken as quantum of the stranded power for the slot due to open access.

ii. The Discoms have calculated slot wise stranded power due to open access and also the total open access power availed in that particular time slot. **Further, based on slot-wise quantum of surrendered power eligible for calculation of Additional Surcharge and slot wise total open access power availed, the corresponding slot wise quantum of surrendered power due to Open Access have been calculated for all the days in first half of FY 2016-17 and accordingly the petitioner has calculated total units in MUs, which corresponds to the stranded power due to Open Access.**

Subsequently, the total quantum of Additional Surcharge to be recovered from the Open Access consumers for first half of FY 2016-17 (in Rs. Crores) is calculated by multiplying the Units of stranded Power (in MUs) so arrived at with per unit effective fixed charge.

It is to be noted that the Commission in it Order dated 14.12.2016 has calculated average monthly fixed cost of backed down power due to Open Access and then calculated the Additional Surcharge by dividing the same by projected monthly Open Access Units.

However, the Discoms in their aforementioned petition has provided the slot wise day wise details of power backed down and open access availed for the entire period i.e. first half of FY 2016-17. As the slot wise data of all six months is available, the Discoms have calculated the total fixed cost of backed down power due to Open Access for all the slots in the 6 months i.e. first of FY 2016-17 and then calculated the

Additional Surcharge by dividing the total fixed cost of backing down power due to Open Access by estimated Open Access Units thereby eliminating any error which may occur due to averaging of data. This is in fact a more elaborate way of working out additional surcharge.

Moreover, no particular methodology for calculation of additional surcharge has been specified in any Regulations notified by the Commission or the Electricity Act, 2003.

Also, it may be noted that per unit Additional Surcharge calculated using any of the methods, i.e. either by using average quantum of power stranded per month or by using total quantum of power stranded for the entire period of 6 months would work out to be same. Therefore, any of above methods can be used for calculation of per unit additional surcharge to be recovered from Open Access Consumers.

b. Additional Surcharge is being calculated and recovered from the Open Access consumers in order to recover the fixed cost of backed down power due to Open Access. In case this fixed cost of power backed down due to Open Access is not recovered from the Open Access consumers by levying Additional Surcharge, the same would be loaded on other consumers who are not availing Open Access. The Commission in its Order dated 14.12.2016 has considered Rs 0.92 per unit as the per unit fixed cost of backed down power for the purpose of calculation of additional surcharge. Whereas, Rs 0.92 per unit is the average per unit fixed cost of power purchase of all the power plants which includes plants which are not having two part tariff and which are not even backed down.

However, the Licensee, for the purpose of calculation of fixed cost of stranded power, has considered the fixed cost of power of only those plants which are having two part tariff. The Discoms have considered Rs 1.29 per unit as the per unit average fixed cost of the plants which are having two part tariff and their fixed cost of power purchase to be paid annually has been approved by the Commission and the same has been considered for calculation of Additional Surcharge. In this context it may be noted that in the methodology adopted by the Commission for working out per unit fixed cost of backed down power, the nominator i.e fixed cost corresponds to only the power plants having two part tariff, the denominator i.e. the total energy in Mus correspond to all the power plants including those which are not having two part tariff.

Further with reference to the contention of objector that when The Commission has already approved the per unit fixed cost of 0.92 per unit, why it should be worked out again, it is submitted that the Commission in its Order dated 14.12.2016 has mentioned that Additional Surcharge has been calculated after considering Rs 0.92 per unit as the per unit fixed cost of power purchase for that particular Order only. The relevant extract of the order has been given below:

> *"While calculating fixed cost for the purpose of estimating Additional Surcharge, DISCOMs have taken fixed cost for the FY 2015-16. Further, they have considered only that much quantum of purchase, which has fixed cost component. Thus, DISCOMs have taken net purchase quantum as 41393.40 MUs i.e. total purchase quantum approved by the Commission for the FY 2015-16 i.e. 56070.92 MUs minus purchase quantum not having fixed cost component– 14677.50 MUs.*
>
> *e) The Commission while approving Additional Surcharge, to be levied w.e.f. 01.08.2016, had considered fixed cost approved for the FY 2016-17 i.e. Rs. 5877.111 Crore minus PGCIL transmission charges Rs. 896.73 Crore, divided by approved volume i.e. 5395.817 Crore units i.e. Rs. 0.92 /kWh.* ***The Commission, for the purpose of the present Order,*** *has considered it appropriate to continue with the same methodology." (****Emphasis Added)***

A perusal of aforesaid para amply also clears that the Commission has considered Rs 0.92 as per unit fixed charge for calculation of additional surcharge for that particular order only.

2. Calculation of Demand Charges Fixed Charges in the ARR

It is hereby submitted that the introduction of fixed charges for certain consumer categories is in line with the two-part tariff principle adopted by almost all the State Electricity Regulatory Commissions (SERCs) across the country. In order to cater the demand or load, utility has to develop a healthy distribution network keeping in view the maximum, minimum load and the load which is likely to come in near future. The Demand charges cover electric utilities' fixed costs of catering certain power demand of their consumers. The challenge is that utilities have to maintain enough capacity to satisfy all their customers' energy needs at once (e.g., a hot day in July when every customer runs their AC). This requires the utilities to keep a vast array of expensive equipment on constant standby, including transformers, wires and substations. This capacity is extremely expensive to build and demand charges help the Utility to meet such costs. As per the section 42 of the Electricity Act, 2003 a Discom is required to

maintain an effective and efficient distribution system. The relevant excerpts of the Electricity Act, 2003 has been mentioned below:

> *"It shall be the duty of a distribution licensee to develop and maintain an efficient, co-ordinated and economical distribution system in his area of supply and to supply electricity in accordance with the provisions contained in this Act."*

It is further submitted that a certain amount of fixed charges has to be charged from consumers as a means of recovering the investment already made by the discoms assuming a certain minimum demand. Especially for industrial consumers, distribution licensees have to undertake significant investment in the attempt to ensure an adequate system in place to cater to the collective demand of the industrial units, if need be.

However, Additional Surcharge is defined as per unit of charge an Open Access consumer is obligated to pay in order to meet the fixed cost of Power purchase of the distribution licensee arising out of his obligation to supply.

The Petitioners submit that the Regulation 22 of the "Haryana Electricity Regulatory Commission (Terms and conditions for grant of connectivity and open access for intra-State transmission and distribution system) Regulations, 2012. Provides as under:

> *"Additional Surcharge.- (1) An open access consumer, receiving supply of electricity from a person other than the distribution licensee of his area of supply, shall pay to the distribution licensee an additional surcharge in addition to wheeling charges and cross-subsidy surcharge, to meet out the fixed cost of such distribution licensee arising out of his obligation to supply as provided under sub-section (4) of Section 42 of the Act.*
>
> *Provided that such additional surcharge shall not be levied in case open access is provided to a person who has established a captive generation plant for carrying the electricity to the destination of his own use.*
>
> *(2) This additional surcharge shall become applicable only if the obligation of the licensee in terms of power purchase commitments has been and continues to be stranded or there is an unavoidable obligation and incidence to bear fixed costs consequent to such a contract. However, the fixed costs related to network assets would be recovered through wheeling charges.*
>
> *(3) The distribution licensee shall submit to the Commission, on six monthly basis the details regarding the quantum of such stranded costs and the period over which these remained stranded and would be stranded. The Commission shall scrutinize the statement of calculation of such stranded fixed costs*

submitted by the distribution licensee and determine the amount of additional surcharge.

Provided that any additional surcharge so determined shall be applicable to all the consumers availing open access from the date of determination of same by the Commission.

(4) The consumers located in the area of supply of a distribution licensee but availing open access exclusively on inter-State transmission system shall also pay the additional surcharge.

(5) Additional surcharge determined on per unit basis shall be payable, on monthly basis, by the open access customers based on the actual energy drawn during the month through open access".

The section 42 of the electricity Act, 2003 also provides for levying of the Additional Surcharge. The relevant excerpts of the Electricity Act, 2003 have been reproduced below:

"Where the State Commission permits a consumer or class of consumers to receive supply of electricity from a person other than the distribution licensee of his area of supply, such consumer shall be liable to pay an additional surcharge on the charges of wheeling, as may be specified by the State Commission, to meet the fixed cost of such distribution licensee arising out of his obligation to supply."

Further, Hon'ble APTEL in the appeal No. 59 of 2013 (Maharashtra State Electricity Distribution Company Limited vs. Maharashtra Electricity Regulatory Commission & Anr.) and Appeal No. 116 of 2013 (Maharashtra State Electricity Distribution Company Limited vs. Maharashtra Electricity Regulatory Commission & Ors.) has passed the judgement on Levy of Fixed charges from Open Access consumers. The relevant extracts of the Judgement has been reproduced below

"The open access consumer who maintains full contracted demand with the Distribution Licensee is liable to pay for demand charges which should cover the fixed cost of the Distribution Licensee. In case the Distribution Licensee is not able to recover full fixed cost for the power arranged for such consumer then the Distribution Licensee has liberty to put up a case with supporting Appeal no. 59 of 2013 and Appeal no. 116 of 2013 Page 40 of 41 documents for the recovery of same for consideration of the State Commission to appropriately compensate the Distribution Licensee so that the burden is not passed on to other consumers. Further, the law has provided a remedy for recovery of stranded cost of the Page 22 of 37 distribution licensee out of its obligation to supply to an open access consumer. Therefore, if the Appellant Distribution Licensee finds that it has to bear same fixed cost (stranded cost) due to its obligation to supply to the open access consumer, it can approach the State Commission with

supporting data and claim Additional Surcharge in its ARR/tariff. Whenever such claim is raised by the Appellant, the State Commission shall consider the same and decide as per law."

A perusal aforesaid amply clears that the Demand charges and Additional Surcharge are not correlated in any manner and Demand charges are recovered on account of investment in the Distribution network made by the licensee. Whereas, additional surcharge is meant to compensate discoms for fixed cost of the stranded capacity due to Open Access Consumers and is borne by the licensee.

It is further submitted that the Discoms have been recovering the fixed charges and Open Access charges as determined by the Commission.

Commission' View

The Commission has dealt with computation of Additional Surcharge at length at relevant paragraph of this Order and the same is in line with the methodology adopted in the previous Order(s). For computation of additional surcharge lower of the power backed down / surrendered and open access power is considered as per actual data available for six months and the same is valued at the per unit fixed cost estimated by the Commission. The Commission reiterates that no stakeholder including the inte4vener have put up a concrete proposal / methodology for adjusting demand / fixed charge while calculating Additional Surcharge for embedded Open Access consumers. They may do so for consideration of the Commission in future.

2.3.8 Objection filed by Haryana Chamber of Commerce & Society

On the behalf of the Haryana Chamber of Commerce & Industry, we are filing our objections as given below:-

1. As the generation cost has been reduced drastically and discoms are purchasing power at a very low cost i.e. Rs. 2.50 to Rs. 2.92/unit. In view of the above existing power generation has also been stopped in Haryana. Why power is still charged from Rs. 11.00 to 25.00 per unit in Haryana industries. This high tariff is resulting in almost closing or shifting of MSME units in Haryana. No State Government would ever prefer to close the industries to protect the power companies, which have such a high establishment costs. Even thefts have not been curtailed by the discoms and losses/theft are at the alarming level of 35% which is very high. All these major losses are in the rural areas of State. If there is any social binding on the discoms/ government then for all these losses

subsidy should be taken from the government itself and no burden should be put on industrial consumers. Furthermore, discoms must fix a maximum rate between Rs. 12-15 per unit maximum and in no circumstances it should go beyond the highest rate due to fixed charges.

2. Fixed charges on 20-50 KW should be reduced drastically. Because discoms can measue MDI and the fiscal charges are put on 80% of the total connected load. It should be reduced to 50% for sustainability of MSME.

3. Audit of the electricity bills should be done every month only so that unnecessary backlog or disputed burden should not be put on the industries at a later stage.

4. To give benefit to the industrial consumers and domestic consumers all the companies of electricity boards in Haryana should be merged in one and the high cost on the infrastructure must be reduced.

5. As the power is surplus during the night hours and which is being given back to the grid at a very low cost of around Rs. 2 per unit. We demand that this power during the night should be provided to all the industries in the State irrespective of any condition around this low price or with some marginal increase. This will definitely boost the production of the State industries and will make them more competitive in the market. Moreover, by this industries can also be put up within the State by the existing or new industrialists if this facility is given.

6. As the electricity is surplus in the State so no peak load charges should be charges from the industries.

7. As the State is having surplus power so the condition to compulsory put roof top Solar Plants is not justified and should be postponed for few years.

8. FSA (Fuel Surcharge Adjustment) should be totally abolished and no increase in the electricity rates should be done. Rather, the cost on the infrastructure must be reduced to reduce the tariff.

9. If the industry put up roof top solars then a rebate of up to Rs. 2.50 per unit rebate should be given to the industry and interest free loan should be provided to the industry.

10. Billing should be made online and the existing cost of billing should be passed on to the consumers moreover this will be also reduce many complications.

11. Two guest houses which are having 30% occupancy only should be closed as it is just incurring the cost only.

12. Cities which are having very less losses/ thefts should be given benefits and the places which are having high losses and thefts must be penalized.

2.3.9 Objection filed by Haryana LOK SARAVHITKARI SOCIETY

Fuel Surcharge Adjustment being charged by the UHBVN is totally un- justified and wrong. In this matter we would like to request you to kindly instruct the UHBVN to get their all calculations and sale purchase and production audited from some third party agency and to submit all these details to HERC also along with the fuel purchase prices for the last 10 years.

We are fully confident that if all these calculations and data is calculated and checked properly then it will come to light that UHBVN was totally un-justified in adding FSA in the consumer bills.

Production of electricity in Haryana state is hardly around 30 percent these days and many a times it is just 20 percent of total consumption. Rest of the electricity was and is being purchased from outside suppliers. More over Haryana UHBVN has been claiming that they have surplus electricity. In this situation charging of FSA is wrong and un-justified. Even the fuel charges in the international markets have come down drastically.

Consumers around 60 lakh in Haryana are being overcharged through FSA to just to cover their losses which is the inefficiency, carelessness and political reasons of UHBVN itself (when UHBVN cannot recover dues from most of villages and cities of Haryana as the consumers do not pay their bills. Even the various governments in the state of Haryana wave off bills of farmers, villagers and defaulters. UHBVN also could not reduce their losses through lines, thefts and establishment charges. All these above losses are being charged by increasing the rates and by adding FSA in the bills.

Why the innocent consumers who have been paying their full bills in time should be burdened with the losses of UHBVN, which is inefficiency and fault of UHBVN only.

We request and demand that UHBVN should be directed to get their complete accounts, calculation, production, sale and purchase etc. audited. In the mean time UHBVN should be directed to stop charging the FSA from consumers.

Commission's View

The Commission has taken note of the aforesaid suggestions. FSA, as already mentioned in the present Order, has been reduced considerably. However, the same cannot be totally abolished till the time the entire FSA amount as quantified by the Commission is recovered. Going forward, incidence of FSA (both negative or positive) cannot be ruled out due to the aberrations in projection of quantum and cost of power from the approved sources which is beyond the control of the Discoms. Moreover, FSA is governed by the MYT Regulations in vogue and the Commission is also bound by its own Regulations. The issue of nighttime surplus including concessional tariff raised by the Intervener has been taken note of. The Commission shall deal with the issue at appropriate paragraphs of the present Order while reckoning with ToU / ToD tariff.

Before proceeding further, the Commission would like to make it clear that the Commission, unless specifically mentioned, does not necessarily subscribe to the replies filed by the Discoms to the objections raised by the interveners herein.

2.4 State Advisory Committee (SAC)

The 16th meeting of the State Advisory Committee (SAC) constituted under Section 87 of the Electricity Act, 2003, was held on 20.03.2017 in the Conference Hall of the Commission at Panchkula is to elicit views / advise of the SAC Members on the MYT APR/ARR/Tariff/ True-up Petitions of all the Power Utilities under consideration of the Commission. The SAC Members mostly confined their comments / suggestion to the performance and the petition filed by the Discoms. The proceedings of the said meeting including views/suggestions of the SAC are reproduced below:-

At the onset, Shri Jagjeet Singh, Hon'ble Chairman, HERC, welcomed the Members of the SAC and other representatives present in the Meeting. The Hon'ble Chairman, HERC, expressed that the Commission has been extending all the necessary support to the Haryana Power Utilities in order to achieve the objectives of economical and reliable power to all sections in a transparent manner. He reiterated that the same shall continue.

Hon'ble Chairman informed the Members of the Committee that the proceedings of the last meeting of the SAC was circulated and as the Commission has not received any comments from any of the Members; the same are accordingly being confirmed and taken as approved.

He further stated that the present SAC meeting has been convened to discuss various issues pertaining to ARR of HPGCL, HVPNL, UHBVNL and DHBVNL and issues emerged during the public hearings of ARR for FY 2017-18 held on 15 and 16 March, 2017. He emphasized that the suggestions of the SAC are important for consistent development of the Power sector in the State.

Shri M.S. Puri, Member, HERC raised the following two important issues that came up during the public hearings on the ARR/Tariff petitions of the Discoms, for the deliberations and views of the SAC:-

i) The Industrial Consumers are subjected to two part tariff i.e. fixed charge and energy / variable charge. Due to sluggish demand for their products / services leads to lower energy demand and load factor thereby the per unit (Rs / kWh or kVAh) effective tariff paid by them in such cases shoots up exorbitantly to as high as Rs. 15/Unit. Thus, there could be a need for capping the maximum tariff payable by them.

ii) Double charging of fixed cost - as some part of the fixed cost is also paid by the electricity consumers, subjected to two part tariff, by way of wheeling charges which is not reckoned with while determining Fixed Cost component of tariff. Hence, either the wheeling charges which is worked out on the basis of cost attributed to network establishment and operation cost (8.23% of the net ARR in the FY 2016-17) may need to be looked into or the fixed component of tariff may need appropriate adjustment to avoid the same cost being recovered twice.

Shri Puri, further said that a part of fixed charges are also being recovered through wheeling charges from the embedded Open Access consumers and the issue has been raised number of times during various hearings, however, the utilities hitherto have not responded and have not made submissions over the issue.

Shri Shatrujeet Kapoor, CMD, UHBVN and DHBVN clarified that the effective rate goes up because the contracted load is not fully utilized by the consumers. He further explained that similar situation is faced by the Discoms as well i.e. in case they do not draw power from a particular source under PPA or due to lower demand the drawl of power is reduced, the entire fixed cost is still payable and since the quantum of power drawl is lower the effective per unit (Rs/kWh) rate paid by them to such generator(s) shoots up accordingly. Shri Puri stated that Discoms may suggest

differential fixed charges for industry on single shift and three shifts or differential could be contract demand as being done in Gujrat.

On the second issue i.e. double charging of fixed cost, Sri Kapoor said that he would examine the provisions / Orders of other SERCs including Gujarat and submit a report / proposal to the Commission within two weeks.

Hon'ble Chairman Shri Jagjeet Singh directed Distribution Utilities to analyze the issue and submit their report in the matter within a week's time so as same may be considered while deciding the ARR and tariff for FY 2017-18.

Shri Puri attracted the attention of SAC Members towards a circular issued by the UHBVNL which provides for supply to Dera and Dhanis from agriculture feeders and raised his concerns in the matter. He stated that this is contrary to the policy of feeder segregation on which huge Capex had already been made by the Discoms and if Discoms continues with this practice a situation will soon arise which will necessitate the feeder segregation again.

Replying to the concerns raised by Shri Puri, Shri Shatrujeet Kapoor informed the Committee that electricity connection to un-electrified Dera/Dhanis has been proposed from AP feeders having PAT facility or by installing PAT whereas feasible and where it is not feasible, the connection be released from the nearest RDS feeder. He asserted that the same has been proposed in line with State Policy of using PAT on AP feeders and to avoid intermingling of AP and RDS supply and crossings of electricity lines to ensure safety in operations and to avoid possibility of theft and misuse of electricity by consumers. He further assured to review the ibid sales circular and modify the same if deemed appropriate.

Chairman, Shri Jagjeet Singh raised the issue regarding implementation of Time of Day (TOD) tariff for LT and HT industries. He asserted that Discoms should design TOD program for HT and LT industries to dispense their surplus power during off peak hours and should review peak hours which have not been changed for ages. He further added that TOD tariff considering seasonal demand and peak hours may be designed by the Discoms.

On the issue ToD Tariff, Shri Kapoor apprised the SAC that given the incompatibility of the meters installed at L.T. Industrial consumers i.e. which has no such register to record electricity consumption w.r.t. time, generic ToD cannot be introduced at this stage. However, it may be possible to introduce season differentiated

tariff. in the case of H.T. consumers he said that the same can be examined w.r.t. to peak / off peak demand period. Shri Puri, Member / HERC added that in case a proposal is submitted for ToD, the Peak Load Exemption Charges (PLEC) in vogue will have to be dispensed with. Additionally, Shri Pillai, Chairman / India Smart Grid Forum suggested that while considering 'Time of Use' tariff real time / dynamic pricing of power should also be considered. He further added that in case the Discoms are contemplating replacing consumer meters including that of L.T. consumers the same needs to be replaced by smart meters which will help is improving the existing tariff design.

Shri Vineet Garg, M.D./HVPN agreed to make available to the Discoms any vacant premises owned by HVPNL to the Discoms in case they so required.

Chairman Shri Jagjeet Singh further emphasized the use of battery storage and opined that an incentive can be proposed to promote the storage capacity alongside rooftop solar plants. He also stressed for TOD tariff for stations established for charging of electrical vehicles and directed utilities to analyze the issues and put up a suitable proposal before the Commission. Shri Singh has also emphasized his concerns regarding extensive use of DG sets in marriages and other public arrangements, contributing to environmental pollution. He suggested that process for getting temporary supply tariff be eased and tariff which is currently one and half times of general tariff be reduced to make it more attractive. Representative from the Discoms assured to ease out the process of temporary connection.

Shri Jagjeet Singh further pointed out that even after the lapse of more than two year since the inception of Regulations; Discoms have yet not streamlined billing of consumers having rooftop solar under net metering arrangement and registered his displeasure. He directed the Discoms to make suitable changes in the billing software to ensure proper billing of such connections. He further emphasized the use of smart meters in the area as specified by the Commission. He also pointed out that the purchase cost of energy meter in the State of Punjab is significantly lower as compared to Haryana and as such directed the Discoms to review and furnish their comments in the matter. He further stressed that connections in the name of persons expired/past away should be discouraged and instructions mat be issued by the Discoms to curb the practice and facilitating promoting change of name easily.

On the issue of 'temporary tariff' which at present is 1.5 times the normal tariff of the tariff category concerned, Shri Shatrujeet Kapoor suggested that the same may be allowed at the normal tariff while the security amount may be doubled from the existing level.

Sh. Singh raised the issue of installation of smart meters for supply of electricity to the telecom towers and Street Light, and accordingly issue one single bill to the Municipal Authorities / parties concerned. Regarding change of name - consumer meter on demise of a consumer, he suggested that the same may be got done by his lawful successor within three months, a failure to do so should lead to forfeiture of the security amount standing against the said connection and penal tariff at the highest rate must be recovered from such consumer. He further raised the issue of periodicity of issuing electricity bills to A.P. consumers wherein the cost of meter reading, billing, bill delivery and revenue collection may outweigh the amount of revenue collection from them at a highly subsidized rate of about 12 Paisa / Unit. He also highlighted the revenue loss to the distribution utilities on the account of multiple connections in a single premise and suggested Shri Kapoor to look into the matter and suggest appropriate measures to avoid revenue loss on this account. Chairman Shri Singh suggested charging of highest tariff from consumers involved in misuse of illegal multiple connections in a single premise.

Chairman Shri Singh also suggested charging of NDS tariff for AP consumption from the consumers having high agriculture income say more than Rs. 20 lacs/annum, in order to reduce the overall burden of AP subsidy provided by the state Government. He suggested that Discoms may take up the matter with State Government o roll out such scheme. He further suggested for carrying out a comprehensive study to ascertain the actual agriculture consumption/sale vis- a vis posed for AP subsidy before the Commission. The CMD, UHBVNL & DHBVNL assured to examine the issue and will submit a report to the Commission for its consideration.

Shri Puri further highlighted the issues related to RE Regulations. He raised issues related to allowing of RESCO model for grid connected roof top solar plants covered under HERC Net metering Regulations, third party sale of power generated through roof top solar plants, waiver of all taxes, Cross Subsidies, Additional Surcharge etc. on transaction of solar power along with the RPO trajectory to be considered for Haryana looking into the topography and current power surplus scenario.

Shri D K Chopra, Technical Advisor, HAREDA informed the Committee that Haryana Solar Policy provides for third party sale and banking of power generated from solar plants. He informed that RESCO model is an arrangement between beneficiary and ESCO in which ESCO on mutually agreed terms, conditions set up/commission a renewable energy plant for the use of beneficiary, and HERC Regulations are silent in the matter.

On the issue of agreement with RESCOs for solar power, Shri Debashish Majumdar, Member, HERC pointed out that the possibility of overcharging by the RESCOs from the Consumers who may not be aware with the technicalities can been ignored and as such advocated for proper mechanism to ensure the safeguard the interest of consumers in large. Replying to the concerns of Shri Majumdar, Shri Chopra appraised that the HAREDA is sensitizing the general public by various modes of communication and specifications, list of approved venders along with reference rates are available HAREDA web portal. He further informed the Committee Members that as on date about 40 MW rooftop solar plants have been installed in Haryana.

Chairman Shri Jagjeet Singh emphasized the need of standardization of roof top solar plants with battery storage and directed HAREDA and Discoms to ensure that the roof top solar commissioned in State under Net Metering Regulations are strictly as per the approved specifications. Shri Singh also emphasized the need for installation of rooftop solar plants by the employees of power utilities. He suggested that power utilities may consider framing a policy which provides for mandatory installation of solar rooftop plants by Haryana Power Utilities employees within a definite time frame say six months and in case of failure to do so such employees may be barred from all kind of electricity benefits extended to them by the utilities.

Regarding RE Regulations and related issues of solar policy, Chairman Shri Singh apprised the Committee that the Commission is reviewing its RE Regulations and requested the licensees and HAREDA to comment actively on the draft regulations which will soon be available for comments of stakeholders. He further directed HAREDA and distribution licensees to study the impact of RPO trajectory proposed by MOP and submit report in the matter.

Shri Puri further requested for suggestions of Committee Members on the issue regarding increasing the cumulative limit of rooftop solar capacity to be allowed on distribution transformer, which is currently 30% of peak capacity of distribution

transformer capacity considering the impact of power injection from rooftop solar on the operations of distribution system.

Replying to the query, Shri Pillai apprised the Committee that ISGF had conducted a study on the international experience and regulatory perspectives which can be referred for necessary amendments in the Net metering Regulations. He further stressed upon technical study to ascertain the impact of rooftop penetration on distribution system.

Shri Jagjeet Singh, Chairman emphasized for roll out of smart meters in the cities like Gurgaon, Faridabad, Karnal and Panchkula so as technology be leveraged for better operations. He suggested that energy meters, proper dismantled thereof be utilized properly in rural areas.

The smart Grid project proposed by DHBVNL at Gurugram was discussed. Shri Kapoor, CMD, DHBVNL informed that DPR of the project has been submitted and the Capital expenditure to tune of Rs. 200 crore for 2017-18 has been posed before the Commission for approval. Shri Singh directed Discoms to submit the additional details of the project within seven days so that the same may be considered with ARR.

Issue of restructuring of power utilities was also discussed. It was consented that merging of two Discoms will help in reduction the overall A&G expenses and will lead to efficient management with uniform policies across Haryana. Shri Kappor was requested to expedite the process and formalities pending at their end in the matter and refer the matter to State Government for the final decision.

Shri Sanjay Varma, Director Tariff, HERC raised the issue of credit to be received from the sales of common pool power form the BBMB generating stations. Representative of HPPC was requested to intimate the status and figures in the matter.

Shri Debashish Majumdar, Member/HERC, raised concern over the sluggish increasing in demand of electricity in the State. He emphasized that the Discoms being commercial entities should take positive and firm steps for actively increasing the demand for power within their market. He emphasized the need for assessing their own performance based not only on fundamental parameters of operational efficiencies and profitability but also consumers satisfaction. Towards this end the Discoms should prepare and submit details plans for a) increasing market size and demand and b) Development of an index for measurement of Consumer Satisfaction.

Chairman Shri Singh emphasized on potential of solar in the Rural areas of Haryana, which at present is deprived of net metering benefits due to limited availability of power. He requested CMD, UHBVNL & DHBVNL to look into the issue and furnish suitable proposal for increasing penetration of rooftop solar areas of Haryana.

Chairman Shri Singh further raised his concerns on the huge defaulting amount yet to be recovered by Discoms, He advised CMD, UHBVNL & DHBVNL to frame suitable action plan for recovery of pending dues.

Chairman Shri Singh further emphasized for consultant of ITI/Diploma/degree trainees for routine maintenance works, meter replacement drives, recovery of pending dues etc.

The issue of Works of License Rules which was to be got notified HVPNL from the State Government was also discussed. Shri Vineet Garg, MD, HVPNL informed the SAC Members that the matter is being discussed with Discoms and shall be finalized soon.

Shri Diwan apprised the Committee Members with the problems being faced by Disocms in accepting payments through Cheque and proposed that payments of electricity bills through check should be discouraged. Hon'ble Chairman, HERC assured that the Commission will look into the matter and impart suitable directions to the Discoms in its ARR Order for FY 2017-18.

Shri Subh Ram Vashista, Secretary apprised the Committee Members that properties of Distribution Licensee are lying abandoned at many places which may be considered for auction if not required. Hon'ble Chairman directed the licensees to look into the matter and initiate suitable action.

Shri Subh Ram Vashista, Secretary further pointed out that the meeting of State Coordination Committee has not yet been convened. Shri Vineet Garg, Managing Director, HVPNL was requested to make necessary arrangements to convene the meeting.

Chairman Shri Singh further emphasized for transparency in the operations of licensee and generating companies and advised all Haryana Power Utilities for consumer friendly web portal and placing all sort of information on their web portal in public domain.

In the end, the Hon'ble Chairman Shri Jagjeet Singh expressed appreciation for each of the SAC Members and other participants for providing their valuable comments/suggestions and requested the Chairman / MDs of the power utilities to expedite compliance of the Orders / Directives issued by the Commission within the timeline specified for the purpose and Commission to be informed accordingly.

2.5 UHBVNL & DHBVNL Revised ARR of FY 2017-18

UHBVNL, vide memo no. Ch-04/GM/RA/N/F-25/Vol-66 dated 29.03.2017 filed supplementary submissions on behalf of both the DISCOMs, submitting as under:-

1. Licensees had, vide the Memo no.Ch-29/GM/RA/N/F-25/Vol-(64) dated 06.01.2017, revised the proposed capital expenditure for FY 2017-18. Accordingly, the APR of FY 2016-17 and Revised ARR for FY 2017-18 as a consequence of change in projected capital expenditure for the FY 2017-18 and other related expenses was submitted before the Commission vide Memo no.Ch-30/GM/RA/N/F-25/Vol-(64) dated 06.01.2017.

2. However, after taking into account the impact of the Commission's Order on the Review Petition dated 13.07.2016, FSA Order dated 03.03.2017 and the directions issued by the Commission during the public hearing held on 16.03.2017, the supplementary submissions for True up of FY 2015-16 and Annual Performance Review (APR) for FY 2016-17 and Annual Revenue Requirement (ARR) for FY 2017-18 has been filed.

3. **Power Purchase Cost of FY 2015-16**

It has been submitted that:

a) The Commission vide Order dated 03.03.2017 had approved Rs. 1377.94 Cr as FSA of FY 2015-16. Since, the FSA is being separately recovered in terms of the order dated 03.03.2017,while truing up, the above amount of Rs. 1377.94 Cr has been reduced from the Annual Revenue Requirement of the Discoms of FY 2015-16.

b) That after going through the details provided in the Review Petition Order dated 13.1.2017, it is noticed that the fixed cost of Rs 164.44 Cr has been reduced from the Power purchase cost of FY 2014-15 on account of the excess amount of fixed cost recovered by HPGCL in FY 2014-15 forms part of Rs. 350.53 Crore (the excess fixed cost recovered by HPGCL during FY 2012-13, FY 2013-14 & FY 2014-15) and whose credit has been given by HPGCL in FY 2015-16. It is also pertinent to mention that the remaining

excess fixed cost recovered i.e. Rs. 164.44 Crore has been reduced by the Commission from the outstanding FSA determined vide Order dated 19.03.2015. It is therefore submitted, as HPGCL has given credit of this reduction to the Discoms in FY 2015-16 and as such the actual power purchase cost of Discoms for FY 2015-16 stands reduced by this amount. The Commission has reduced this amount i.e. Rs 350.53 Cr from the power purchase cost / FSA of the Discoms during FY 2013-14 & 2014-15 which has led to double accounting of same. Similarly, an amount of Rs.10.01 Crore on account of O&M expenses for FY 2013-14 have also been reduced from the power purchase cost of Discoms in FY 2014-15. However, the credit has been given by HPGCL in FY 2015-16 leading to reduction in actual power purchase cost whereas the Commission has already reduced this amount from the actual power purchase cost allowed to the Discoms for FY 2014-15.

4. Power Purchase Cost of FY 2017-18

a) The Licensees have stated that in the present submissions, the power purchase cost has been projected on the basis of the full year actual for the FY 2015-16 and the latest available data for the FY 2016-17. It is also assumed that any additional liability on account of judgements of APTEL / CERC etc. will be considered at the time of actual payment and shall be addressed through the FSA as per the regulations. Power Purchase Cost proposed for FY 2017-18 has been accordingly reduced.

b) The revenue at existing tariff for FY 2017-18 has been calculated based on the category wise unit sales projected and connected load and the existing fixed and variable charges, using the HERC methodology, which gives revenue gap of Rs. 2859.06 Crore.

c) The projected revenue gap as given above is proposed to be partly met through a tariff increase. The Discoms have proposed a seasonal tariff for the first half and the second half of the FY 2017-2018 and submitted that it will result in reduction of revenue gap by Rs. 1311.86 Crore and will be at Rs. 1547.20 Crore.

d) The net revenue gap of Rs. 1547.20 Crore will be met through efficiency gains of utility and/or Operational financing support as provided under UDAY scheme. The actual gap may be addressed at the time of performance review/True-Up.

e) The Licensee is also releasing electricity connection to the consumers residing in unauthorised colonies/ dwellings without conferring them any ownership rights on the land / premises. It is submitted that presently these consumers are billed at tariff applicable for temporary connections which is 1.5 times of Energy Charge of relevant category. Further they also are required to pay ACD @ 4 times as applicable to temporary category. It is proposed to create a separate tariff category for consumers of such unauthorised colonies/ dwellings. It is proposed that such consumers shall pay double amount of security being paid by a normal consumer of relevant category for which supply has been sought however the tariff applicable shall be same as that paid by consumers of relevant category. It is further clarified that electricity bill or any other related document of such consumers shall not be in any case treated as proof of legal ownership/occupancy of the land/ premises where such connection has been given or sought for the any other purpose.

f) In order to encourage online payment, the Discoms propose that the MDR (Merchant Discount Rate or Convenience Fee on digital payments) charges on payments through payment gateway of the Nigams by credit card, debit card, net banking, on Discoms website and swiping of card on POS machines on Discoms counters may be borne by the Discoms. So far the amount of MDR levied on the consumers annually is about Rs. 5 cr which is not very significant. However the amount may increase if the charges are borne by the Discoms. Further it has also been decided by the State Government that in order to promote cashless transactions, a discount of 5% of the bill amount subject to a maximum of Rs. 50/- whichever is less may be given to the consumers for making payment of electricity bill, water & sewerage bills through BHIM App from 1st April 2017 for one year. In order to offset the impact of this expenditure on the Discoms, a proposal would be given separately for imposing certain cash handling charges on consumers opting for payment of energy bills in cash. The charges for payment through e-wallets, mobile wallets, pay TM, m-pesa, etc. will however continue to be borne by the consumers. Further is also proposed that since the Discoms will be bearing the charges of payment through their payment gateway, the incentive of Rs. 5 per bill for digital payments of bills up to Rs. 15000/-

ordered by the Commission in the order dated 01.08.2016 may be withdrawn. Further it is also proposed that payments of bills by cheque be accepted only for bills up to Rs. 10000/-.

Accordingly, the DISCOMs have submitted the revised ARR for the FY 2017-18, as under:-

Summary of Actual ARR		***FY 2017-18***	***FY 2017-18***	***FY 2017-18***
Sr.	***Particulars***	***UHBVN***	***DHBVN***	***Haryana***
1	**Total Power purchase cost**	**10,959.56 ***	**14,010.19 ***	**23,906.55**
1.1	*Power Purchase Expenses*	*9,292.21*	*11,818.81*	*21,111.02*
1.2	*Inter State Transmission Charge*	*512.05*	*899.22*	*1,411.27*
1.3	*Intrastate transmission charges and SLDC charges*	*682.92*	*701.34*	*1,384.26*
2	**Operations and Maintenance Expenses**	**1,288.05**	**1,392.76**	**2,680.80**
2.1	*Employee Expense*	*676.35*	*815.88*	*1,492.23*
2.2	*Administration & General Expense*	*81.06*	*77.72*	*158.77*
2.3	*Repair & Maintenance Expense*	*130.64*	*114.16*	*244.80*
2.4	*Terminal Liability*	*400.00*	*385.00*	*785.00*
3	**Depreciation**	**339.64**	**315.80**	**655.44**
4	**Total Interest & Finance Charges**	**1,182.09**	**907.00**	**2,089.08**
5	**Return on Equity Capital**	**268.19**	**242.42**	**510.61**
6	Prior Period Expense	-	-	-
7	Bad and Doubtful Debts	40.44	32.49	72.93
8	Other Expense	-	-	-
9	**Total Expenditure**	**14,077.96**	**16,900.65**	**29,915.41**
10	Less: Non Tariff Income	197.25	247.47	444.72
11	**Net Aggregate Revenue Requirement**	**13,880.70**	**16,653.18**	**29,470.69**
12	**Total Revenue**	**8,074.25**	**11,236.93**	**19,311.18**
12.1	*Revenue from Interstate sales*	*770.36*	*711.76*	*1,482.12*
12.2	*Revenue from Intrastate sales @current tariff*	*7,303.90*	*10,525.17*	*17,829.06*
13	**Regulatory Gap**	**-5,806.45**	**-5,416.26**	**-10,159.50**
14.1	Govt. subsidy (excluding FSA subsidy)	3,738.13	2,492.09	6,230.22
14.2	True-Up of Subsidy FY 2015-16	145.10	96.73	241.83
15	**Regulatory GAP after subsidy**	**-1,923.22**	**-2,827.44**	**-3,687.46**
16	*Revenue From FSA relating to previous years as per the order dated 03.03.2017*			828.40
17	**Net Gap After FSA**			**-2,859.06**

* there is a totalling difference in the Power purchase cost i.e. Power Purchase cost has been overstated by an amount of Rs. 472.39 Crore and Rs. 590.81 Crore, in case of UHBVNL and DHBVNL, respectively.

Chapter 3

ANALYSIS OF ARR FILINGS AND COMMISSION'S ORDER

The Commission, while passing this Order for True-up of the FY 2015-16 Annual (Mid-year) Performance Review of the FY 2016-17 and determination of ARRs of the UHBVNL and DHBVNL for the FY 2017-18, has taken into account their respective Petitions, additional information/data provided by them from time to time, revised ARRs, objections / suggestions of the stakeholders, replies of distribution licensees thereto, views expressed by the objectors during the public hearing(s) and the suggestions of the State Advisory Committee.

3.1 True-up of the ARR for the FY 2015-16

The Discoms have submitted that their petition(s) for True-up of the ARR for the FY 2015-16 are based on the audited accounts. The True-up petitions have been examined by the Commission in the light of the MYT Regulations, 2012 and amendment thereof, relevant Orders of the Commission and the audited accounts for the FY 2015-16 made available to the Commission by the Discoms.

Regarding True-up of the ARR, the MYT Regulations, 2012 provide as under:-

"13. TRUING-UP

13.1 Truing-up of the ARR of the previous year shall be carried out along with mid-year performance review of each year of the control period only when the audited accounts in respect of the year(s) under consideration is submitted along with the application. In case audited accounts pertaining to the year, of which truing-up is to be undertaken, are not available, the generating company or the licensee as the case may be, shall submit the provisional account duly approved by the Board of Directors of the company/licensee.

13.2 Truing-up of uncontrollable items shall be carried out at the end of each year of the control period through tariff resetting for the ensuing year and for controllable items shall be done only on account of force majeure conditions and for variations attributable to uncontrollable factors.

13.3 The Commission shall allow carrying costs for the trued–up amount (positive or negative) at the interest rates specified in these

regulations by adjusting the interest allowed on the working capital requirement for the relevant year of the control period.

Provided that no carrying cost shall be allowed on account of delay in filing for True-up due to unavailability of the audited accounts;

Provided further that if the Commission determines an over recovery during the true- up, funding cost for such trued up amount shall be considered for the delayed period and adjusted accordingly as per provisions of this regulation.

13.4 Over or under recoveries of trued-up amount in previous year(s) of the control period shall be allowed to be adjusted in the ensuing year of the control period by appropriate resetting of tariff. The unrecovered amount in the one control period shall be adjusted in the subsequent control period".

Accordingly, the True-up of each item of expenses is discussed in the paragraphs that follow.

3.1.1 O&M Expenses

The O&M expenses comprise of Employee cost, Terminal benefits, R&M expenses and A&G expenses. The MYT Regulations clearly provide for the methodology and principles to be considered for calculating the True-up amount. However, as the Jind Circle was transferred vide the State Government Notification dated 3.07.2013 from the licensed area of UHBVNL to DHBVNL in July 2013, the impact of the same has been taken into account by the Commission. Resultantly, the approved expenses for both UHBVNL and DHBVNL have been adjusted to enable an appropriate comparison of actual expenditure with the approved expenditure for True-up exercise for the FY 2015-16.

In line with regulation 57.3 of the HERC MYT Regulations 2012, the Inflation factor for the FY 2015-16, is calculated as under:-

INDXn = 0.55 * Consumer Price Index (CPI) + 0.45 * Wholesale Price Index (WPI).

Table 3.1 Calculation of Weighted Annual Average Inflation

Index = (0.55 * CPI +0.45 * WPI)	
Index (n) for FY 2015-16	225.2763
Index (n-1) for FY 2014-15	219.4946
Weighted Average Inflation Factor (rounded off)	2.63%

UHBVNL

The Commission had allowed O&M expenses (excluding terminal benefits) amounting to Rs. 645 Crore for the FY 2014-15 as part of True-up in the ARR/Tariff Order for the FY 2016-17. Hence, the same shall now form the base year figures for calculating the admissible Employee and A & G Expenses for the FY 2015-16. The O & M expenses are calculated as per the MYT Regulations i.e. employee and A & G Cost are calculated after accounting for the increase (based on the inflation factor) and R & M cost is calculated based on 1.65% of average GFA of the FY 2015-16. Accordingly, normative O & M expenses, as per the MYT Regulations, works out to Rs.706.24 Crore. However, the actual expenditure incurred by UHBVNL is Rs. 612.12 Crore as per the audited accounts for the FY 2015-16 as against Rs.696.96 Crore approved by the Commission in the MYT Order for the FY 2015-16. **The actual expenditure, therefore, is less than the allowable O & M expenses as per the MYT Regulations and is also less than the expenses already allowed by the Commission for the FY 2015-16. Therefore, Rs. 612.12 Crore is now approved as the revised O&M expense for the FY 2015-16.**

Table 3.2 O&M expenses of UHBVNL for FY 2015-16

(Rs. in Crore)

Particulars	True-up	HERC Approval	UHBVNL (actual as per Audited Accounts)	HERC (revised approval)
FY	2014-15	2015-16	2015-16	2015-16
Employees Expenses (excluding terminal benefits)	512.71	512.78	498.49	498.49
A & G Expenses	76.60	72.95	75.24	75.24
R & M Expenses	55.69	111.23	38.39	38.39
Total	**645.00**	**696.96**	**612.12**	**612.12**

DHBVNL

The O&M expenses (excluding terminal benefits) of DHBVNL for the FY 2014-15 approved by the Commission was, Rs. 710.34 Crore. Hence, this shall be the base year figures for the purpose of calculating the normative Employee and A & G Expenses for the FY 2015-16. The O & M expenses are calculated as per MYT Regulations i.e. employee and A & G Cost are calculated after accounting for the increase (based on the inflation factor) and R & M cost is calculated based on 1.65% of average GFA of the FY 2015-16. Total allowable O & M Expenses, as per the MYT Regulations, work out to Rs.794.51 Crore as against Rs. 677.05 Crore approved in the MYT Order for the

FY 2015-16 and Rs. 745.45 Crore actual expenditure incurred by DHBVNL as per audited accounts. The Commission observes that though the increase in employee cost is 6.44% over the previous year, the same is considered reasonable in view of the increase in DA for the year. The actual expenditure, Rs. 745.45 crore, being less than the allowable O & M expenses as per the MYT Regulations, is now approved as the revised O&M expense for the FY 2015-16.

Table 3.1 O & M Expenses of DHBVNL for FY 2015-16

(Rs. in Crore)

Particulars	Audited expenses	HERC Approval	DHBVNL (as per Audited Accounts)	HERC (revised approval)
	2014-15	**2015-16**	**2015-16**	**2015-16**
Employees Expenses	599.07	518.52	637.68	637.68
A & G Expenses	71.83	60.46	72.13	72.13
R & M Expenses	39.44	98.07	35.64	35.64
Total	**710.34**	**677.05**	**745.45**	**745.45**

3.1.2 Terminal benefits

Terminal benefits are uncontrollable expenses as per the MYT Regulations, 2012. Hence, the same are trued-up based on the audited accounts of the Discoms i.e. **Rs. 268.27 Crore for UHBVNL and Rs.392.00 Crore for DHBVNL**.

3.1.3 Depreciation

The Commission observes that actual opening Gross Fixed Assets (GFA) as on 1.4.2015 for UHBVNL is Rs. 5919.61 Crore i.e. lower than Rs. 6323.55 Crore estimated by the Commission for calculating depreciation for the FY 2015-16. While in the case of DHBVNL the actual opening GFA as on 1.4.2015 as per audited accounts for the FY 2015-16 i.e. Rs. 6233 Crore is higher than Rs. 5558.91 Crore estimated by the Commission for working out depreciation for the FY 2015-16 in the MYT Order dated 07.05.2015.

In view of the change in the opening balance of GFA and the composition of assets, the average rate of depreciation for FY 2015-16 works out to 4.60% as against 4.80% considered by the Commission for UHBVNL and 4.53 % against 4.80% for DHBVNL in the MYT Order dated 07.05.2015.

The Gross depreciation for the FY 2015-16, as per the audited accounts, is Rs.272.42 Crore and Rs. 282.21 Crore for UHBVNL and DHBVNL respectively. The net depreciation (net of depreciation on assets funded through consumers' contributions/grants) is Rs. 239.83 Crore and Rs. 199.89 Crore respectively for UHBVNL and DHBVNL. Accordingly, the Commission approves the deprecation as per the audited accounts as above, the details are provided in the Table 3.4 and 3.5.

Table 3.2 Depreciation of UHBVNL for FY 2015-16 (Rs. Crore).

Particulars	Approved in the MYT Tariff Order dated 07.05.2015	Actual as per Audited accounts	HERC Revised approval for the FY 2015-16
Opening Gross GFA for the year	6323.55	5919.61	5919.61
Depreciation	265.92	272.42	272.42
Rate of Depreciation	4.21%	4.60	4.60
Less: depreciation on consumer contribution	33.45	32.59	32.59
Net Depreciation	**232.46**	**239.83**	**239.83**

Table 3.3 Depreciation of DHBVNL for FY 2015-16 (Rs. Crore)

Particulars	Approved in the MYT Tariff Order dated 07.05.2015	Actual as per Audited accounts	HERC Revised Approval for the FY 2015-16
Opening Gross GFA for the year	5558.91	6233.10	6233.10
Depreciation	266.92	282.21	282.21
Rate of Depreciation	4.80	4.53	4.53
Less: depreciation on consumer contribution	64.66	82.32	82.32
Net Depreciation	**202.26**	**199.89**	**199.89**

3.1.4 Interest on Consumers Security Deposit

The Commission, vide the MYT Order dated 07.05.2015, had approved interest on consumer security deposit at Rs.69.10 Crore (UHBVNL) for the FY 2015-16, as proposed by the licensee.

UHBVNL has now intimated the actual interest paid on consumers' security deposit as per their audited accounts of the FY 2015-16 is Rs. 57.77 Crore, which is lower than the interest cost already approved by the Commission. However, the Commission observes that the licensee is yet to pay Rs. Rs. 20.70 crores out of this

reflected as incremental amount of interest payable on Consumer Security Deposit. The Commission, therefore, approves only Rs. 37.07 crores (57.77 – 20.70) as interest on consumer security deposit for the FY 2015-16 being the amount actually paid by the licensee. **The Commission directs the licensee to provide details of interest on consumer security deposit that has not been paid inspite of clear directions of the Commission in this regard.**

Similarly, in the case of DHBVNL, the Commission had approved Rs.94.01 Crore as interest on consumer security deposit while the actual expenses, as per the audited accounts, is Rs.15.41 Crore. The actual expenditure of both the Discoms, being lower than that allowed by the Commission in its MYT Order for the FY 2015-16, is therefore, approved for true- up of interest on consumers' security deposit for the FY 2015-16 for both UHBVNL and DHBVNL except for adjustment of Rs. 20.70 crore as above.

The Commission observes that a large number of consumers, during the public hearing, had complained of not receiving interest on consumer security deposit. The Commission, therefore, again directs the Discoms to ensure compliance of the Commission regulations in this regard.

3.1.5 Interest on Capex loans

UHBVNL

The Commission observes that UHBVNL has incurred an expenditure of Rs.513 Crore on additions to capital works as against Rs. 983.55 Crore approved by the Commission for the FY 2015-16 in the MYT Order dated 29.05.2014 which was retained by the Commission vide ARR / Tariff Order dated 7th May 2015. On this account, the actual interest cost on Capex loan incurred by the Discom, is Rs.147.41 Crore as against Rs.120.74 Crore (net of IDC) proposed by the licensee and approved by the Commission in its MYT Order dated 07.05.2015 for the FY 2015-16. However, the Commission, at paragraph 3.3.1 has examined the capital expenditure actually incurred by the licensee during the FY 2015-16 as against that approved by the Commission and observes that actual expenditure amounting to Rs. 16.57 crores has not been approved by the Commission or is in excess of the amount approved. Out of this, Rs. 9 crores, that has been spent on release of tube well connections, is funded out of consumer contribution. Therefore, proportionate interest on balance amount of Rs. 7.57 crores amounting to Rs. 1.06 crores is reduced from the interest cost incurred

for the year. **Consequently, Rs. 146.35 crore out of Rs. 147.41 crore incurred by the licensee on account of interest on Capex loan, shall now form part of the revised ARR for the FY 2015-16.**

DHBVNL

The Commission observes that the licensee has incurred an expenditure of Rs. 587.87 Crore on additions to the capital works in the FY 2015-16 as against Rs. 867.29 Crore approved by the Commission in the MYT Order dated 29.05.2014. The Commission had approved interest on capx loan amounting to Rs. 134.16 crores against which the licensee has incurred an expenditure of Rs. 103.25 crores(net of IDC). The Commission has examined the calculations and observes that the expenditure incurred by the licensee on this account appears to be reasonable and therefore the same is approved for true up for the FY 2015-16. However, the Commission, at paragraph 3.3.1 has examined the capital expenditure actually incurred by DHBVNL during the FY 2015-16 as against that approved by the Commission and observes that actual expenditure amounting to Rs. 54.50 crores has not been approved by the Commission or is in excess of the amount approved. Therefore, proportionate interest on the same, amounting to Rs. 3.35 crores, is reduced from the interest cost incurred for the year. **Consequently, Rs. 99.90 crore out of Rs. 103.25 crore incurred by the licensee on account of interest on Capex loan, shall now form part of the revised ARR for the FY 2015-16.**

3.1.6 Interest on Working Capital loan

As the total approved ARR has undergone a change on account of the true- up of expenses that has been approved by the Commission; the admissible working capital loan and interest thereto has been recalculated accordingly in line with the MYT Regulations. The revised calculation of approved working capital borrowings and Interest cost thereto, for both UHBVNL and DHBVNL, is as under:-

Table 3.4 Interest on Working Capital Loan of UHBVNL (Rs. Crore)

Interest on working capital	**FY 2015-16**
O&M expenses for 1 month	73.37
Maintenance spares 1% of opening GFA	59.20
2 months receivables	1787.60
Uncollected revenue (1.5% of receivables)	107.26
Total	2027.41
Less	

Advance Consumers Security Deposit during the year	838.04
Net working capital	1189.38
Interest rate	12.5 %
Interest cost (rounded off)	148.67

Table 3.5 Interest on Working Capital Loan of DHBVNL (Rs.Crore)

Interest on working capital	FY 2015-16
O&M expenses for 1 month	94.79
Maintenance spares 1% of opening GFA	62.33
2 months receivables	2384.02
Uncollected revenue (1.5% of receivables)	143.04
Total	2684.18
Less: Advance Consumers Security Deposit during the year	1012.41
Net working capital	1671.77
Interest rate	12.50%
Interest cost (rounded off)	208.97

3.1.7 Interest on UDAY Bonds

Government of India has notified Ujwal Discom Assurance Yojana (UDAY) scheme for operational and financial turnaround of power distribution companies (DISCOMs), on 20th Nov 2015 under which State shall take over 75% of Discom debt as on 30th September, 2015 over two years i.e. 50% of Discom debt shall be taken over in FY 2015-17 and 25% in the FY 2017-18.

The Government of India, the State of Haryana and the DISCOMs of Haryana (Uttar Haryana Bijli Vitran Nigam Ltd. and Dakshin Haryana Bijli Vitran Nigam Ltd.) signed the tripartite Memorandum of Understanding (MOU) under the Scheme UDAY – "Ujwal DISCOM Assurance Yojana" on 11th March 2016 for operational and financial turnaround of the DISCOMs. The implementation of UDAY is expected to lead to changes in the projections of interest and finance charges for the Discoms and have a positive impact on the revenue requirement of the Discoms.

The turnaround is proposed to be achieved through:

- Improving operational efficiencies of DISCOMs (AT&C Losses to be 15% & ACS ARR gap to be eliminated by 2018-2019)
- Reduction of cost of power
- Reduction in interest cost of DISCOMs
- Enforcing financial discipline on DISCOMs through alignment with State finances

Salient Features of UDAY are listed below:

- States shall take over 75% of DISCOM debt as on 30 September 2015 over two years - 50% of DISCOM debt shall be taken over in 2015-16 and 25% in 2017-18
- Government of India will not include the debt taken over by the States as per the above scheme in the calculation of fiscal deficit of respective States in the financial years 2015-16 and 2017-18
- States will issue non-SLR including SDL bonds in the market or directly to the respective banks / Financial Institutions (FIs) holding the DISCOM debt to the appropriate extent
- DISCOM debt not taken over by the State shall be converted by the Banks / FIs into loans or bonds with interest rate not more than the bank's base rate plus 0.1%. Alternately, this debt may be fully or partly issued by the DISCOM as State guaranteed DISCOM bonds at the prevailing market rates which shall be equal to or less than bank base rate plus 0.1%.
- Reduction of cost of power.

The schedule of takeover of loan has been given as under:-

Break up of State Govt Takeover of Loans					
Particulars	FY 16	FY 17	FY 18	FY 19	FY 20
Grant (%)	11.25%	11.25%	11.25%	11.25%	11.25%
Grant (Cr)	3,892.5	3,892.5	3,892.5	3,892.5	3,892.5
Equity (%)	3.75%	3.75%	3.75%	3.75%	3.75%
Equity (Cr)	1,297.5	1,297.5	1,297.5	1,297.5	1,297.5
Debt (%)	35.00%	45.00%	30.00%	15.00%	0.00%
Debt (Cr)	12,109.9	15,569.9	10,379.9	5,190.0	0.0

The Commission observes that the UDAY scheme, if implemented properly, will result in all round benefit, ultimately resulting in lower tariff to the consumers once the State Government completes the committed infusion of funds by way of equity and grant by the end of five years. However, the Commission observes that as per the MoU dated 11.03.2016 the Operational Funding (OFR) has to be provided by the State Government. The interest on the UDAY bonds, as quantified by the Discoms for the FY 2015-16 and the FY 2017-18 adds up to Rs. 9468.9 million.

UHBVNL and DHBVNL have not proposed any interest on UDAY borrowings separately and have included the same as part of their working capital borrowings. However, the Commission is of the opinion that borrowings and interest thereon arising

out of the UDAY scheme are separate from the regular working capital borrowings and as such are to be shown separately when these are proposed for true up in subsequent years. The Commission has retained the working capital borrowings to the normative level and expects the balance to be met from the OFR support available under UDAY. Further, as per the details provided by the Discoms there are some interest liability on the UDAY bonds in the FY 2016-17 as well. As the Commission, in the present Order has restricted itself, in line with the MYT Regulations in vogue, to true-up of the FY 2015-16 and determination of ARR including true-up amount for the FY 2015-16, hence, all the issues related to the FY 2016-17 shall be reckoned with while carrying out true-up of the FY 2016-17 in the FY 2018-19. The interest on UDAY borrowings as filed by the Discoms are as under:-

Table: Interest on UDAY borrowings for the FY 2015-16 (Rs. Crore)

UHBVNL	DHBVNL	Total
1.67	0	1.67

3.1.8 Cost of raising Finance and Bank Charges

The Commission had not allowed any expenditure towards cost of raising finance and bank charges to both the Discoms and the same was to be considered as part of the True-up exercise.

As per the audited accounts, UHBVNL has incurred a cost of Rs. 2.43 Crore while DHBVNL has incurred Rs.1.62 Crore on this account. As it is unavoidable cost required for raising the requisite funds, the Commission allows the same to be trued up.

3.1.9 Other Debits

UHBVNL in its ARR for FY 2015-16 as per its True-up petition has included other expenses of Rs. 39.88 Crore as per the details provided in the table below:

Table: Other Expenses UHBVNL (Rs. Lakhs)

1	Provision for bad and doubtful debts	3480.29
2	Compensation for injury , death and damage and penalties	304.49
3	Infructuous Capital Exp. Written Off	27.48
4	Loss on Obsolescence of Stores & Spares	21.78
5	Sundry Debits balances Written Off	55.68
6	Provision for amount recoverable from employees / theft of property	98.48
	Total	3988.20

The Commission has examined the submission of the licensee and observes that part of other expenses includes provisions for bad debts and other losses amounting to Rs.35.79 Crore (Sr. No. 1and 6) which are not admissible for true - up of actual expenditure. **Hence, after excluding these the Commissions allows Rs.4.09 Crore as other debits for True-up.**

DHBVNL has proposed a True-up of other debits of Rs. 32.48 Crore as given in table the table below:

Table: Other expenses DHBVNL (Rs. Lakhs)

	Particulars	Amount (Rs. Lakhs)
1	Shortage on physical verification of stock	56.83
2	Loss of materials by pilferage etc.	78.77
3	Compensation for injuries, death and damage- staff	187.42
4	Compensation for injuries, death and damage- Outsiders	502.72
5	Misc. Compensation	169.98
6	Loss on sale of Fixed Assets	1771.07
7	Sundry debit balance written off	25.91
8	Written of Provision on account of theft of material	455.20
	Total	3247.93

The Commission has examined the above and observes that part of other debits includes shortage on physical verification, pilferage and theft (Sr. No. 1,2 and 8) amounting to Rs.5.91 Crore which are not admissible for True-up of actual expenditure. **After excluding the said amount, the Commission allows Rs.26.57Crore as other expenses for True-up.**

3.1.10 Prior Period Expenses

DHBVNL has filed for True-up of prior period income (net of prior period expenses) amounting to Rs.0.83 Crore respectively. The Commission observes that the amount as per their audited accounts is Rs. 0.51 Crore and is admissible as per the MYT Regulations, 2012. Hence, the same is allowed to be trued-up. However, the true up petition of UHBVNL has not mentioned any prior period adjustment inspite of the audited accounts showing a net prior period income of RS. 25.23 crores. **The Commission, in accordance with the MYT regulations and its earlier orders has reduced the ARR of UHBVNL by Rs. 25.23 crores on account of prior period adjustment as per the audited accounts of UHBVNL for the FY 2015-16.**

3.1.11 Return on Equity (RoE)

UHBVNL and DHBVNL have proposed True-up of return on equity for the FY 2015-16 amounting to Rs. 228.94 Crore and Rs. 203.80 Crore respectively. The Commission observes that True-up has to be necessarily based on the same principles as were applied while approving the ARR/Tariff for the FY 2015-16**. As the Commission had not allowed any RoE in the ARR/Tariff Order dated 29.05.2014, the same cannot be considered as part of the True-up exercise.**

3.1.12 Non-tariff Income

The Commission had approved Rs. 150.91 Crore as non - tariff income for the FY 2015-16 as proposed by the UHBVNL and the actual non - tariff income as per audited accounts is Rs. 248.30 Crore. However, the licensee has now submitted that Rs. 65.31 crores, being delayed payment surcharge from the consumers may not be considered as income of the licensee as the same is towards the cost of additional working capital required when the consumers do not pay on time for the bills raised to them. **Accordingly, the revised non- tariff income for the FY 2015-16 has been approved at Rs. 182.99 Crore (248.30-65.31) as proposed**.

Similarly, in the case of DHBVNL, the Commission had approved Rs. 149.83 Crore as non - tariff income for the FY 2015-16 as proposed by them. The actual non - tariff income as per audited accounts is Rs. 303.53 Crore. The licensee has now submitted that Rs. 79.08 crores, being delayed payment surcharge from the consumers may not be considered as income of the licensee as the same is towards the cost of additional working capital required when the consumers do not pay on time for the bills raised to them. **Accordingly, the revised non- tariff income for the FY 2015-16 has been approved at Rs. 224.46 Crore** (303.53-79.08).

3.1.13 True-up of Power Purchase Cost

The Commission observes that difference in power purchase cost could arise either on account of variation in actual generating source wise quantum or rate of power vis-à-vis those allowed by the Commission on a projected basis. As per the MYT Regulations the Discoms are allowed to automatically recover FSA, without going through the regulatory process, in order to ensure financial viability of the licensees. However, the automatic recovery is subject to a cap and therefore shall necessitate a

True-up. Also, the actual cost for the year can only be determined after the audited accounts are available.

In view of the aforesaid constraints, the actual power procurement cost is to be trued up based on the normative distributions losses approved by the Commission in the ARR / Tariff Order for the relevant year. Transmission losses are allowed as per actual since the Discoms have no control over these losses.

UHBVNL, vide memo no. Ch-04/GM/RA/N/F-25/Vol-66 dated 29.03.2017, submitted that the Commission, in its Order on FSA dated 03.03.2017 had determined the power purchase cost for the FY 2015-16. However, it was observed that certain items of cost relating to power purchased from HPGCL had been accounted for in earlier orders of the Commission for which the credit had been given by HPGCL in the FY 2015-16. Accordingly, the power purchase cost of the Discoms had been reduced by the same amounts at two places which has lead to loss to the Discoms.

The Commission has examined the submission of UHBVNL and has reworked the power purchase cost of HPGCL to be allowed in the FY 2015-16 as below:

TOTAL POWER PURCHASE COST OF HPGCL BOOKED BY HPPC IN THE FY 2015-16 (A)		5,228.57
Adjustments in Power Purchase Cost based on Supplementary Petition filed by UHBVNL		
vide memo no. Ch-04/GM/RA/N/F-25/Vol-66 dated 29.03.2017		
(A) Add amounts already adjusted in ARR in previous years)		
1. Over recovery of Fixed cost by HPGCL	350.53	
2. Reduction in O&M expenses of HPGCL in the review petition of HPGCL.	10.1	
3. Surcharge on late payment	9.44	370.07
Less		
HPGCL surcharge (not to be allowed in the ARR)		329.06
Net Additions to power purchase cost of HPGCL		41.01
TOTAL POWER PURCHASE COST OF HPGCL APPROVED FOR THE FY 2015-16		5269.58

Consequent to the above adjustment, the details of True-up of power purchase cost of the Discoms for the FY 2015-16 is as per the table below.

Table: True-up of Power Purchase Cost (FY 2015-16)

Particulars		UHBVNL	DHBVNL	Total
Sales as per Audited accounts		13459.85	18777.19	32237.04
Less AP sales included in above		3979.70	5196.80	9176.50
Sales as per audited accounts (net of AP sales)		9480.15	13580.39	23060.54
Add AP sales approved by the Commission		3936.09	4970.65	8906.74
Total sales approved by the Commission		13416.24	18551.041	31967.281
Approved Distribution losses	%	24.79%	21.96%	
Sales grossed up for Distribution losses	MU	17838.37	23771.20	41609.57

Particulars		UHBVNL	DHBVNL	Total
Interstate sales and banking	MU	1847.49	3008.48	4855.97
Total power purchase net of Transmission loss	MU	19685.86	26779.68	46465.54
Intrastate & Interstate transmission losses as per audited accounts	MU	904.55	1121.88	2026.43
Approved power purchase volume (Sales grossed up by transmission and distribution losses)	MU	20590.41	27901.56	48491.97
Actual Power Purchase Volume as per Audited accounts	MU	22399.91	27362.98	49762.89
Disallowed Units	MU	1809.50	-538.58	1270.92
Cost of disallowed units at variable cost @2.62 per unit (as per FSA order)				332.98
Two third to be borne by the Discoms				221.91
One third to be borne by the consumers				110.99
Actual power purchase cost including transmission and SLDC charges				22495.21
Add: adjustment for HPGCL				41.01
Less two third cost of losses to be borne by the Discoms				-221.99
Net power purchase cost admitted by the Commission				22314.24
Per unit admitted cost (inclusive of Transmission cost and SLDC charges)				4.60
Power purchase cost		9474.96	12839.28	22314.24

3.1.14 Revenue from Sale of Power for the FY 2015-16

As per audited accounts for FY 2015-16, the two distribution licensees have recovered revenue from sale of power of Rs. 14778.33 Crore as against Rs. 16063.00 Crore estimated by the Commission. The True-up of revenue from sale of power for the FY 2015-16 is as given in the table below.

Table: Revenue from sale of power for the FY 2015-16

(Rs. Crore)

	UHBVNL	DHBVNL	TOTAL
Revenue from Intrastate sale of power (not including FSA)	5687.68	8292.96	13980.64
Fixed charges	563.45	929.69	1493.14
Total revenue from sale within state	**6251.13**	**9222.65**	**15473.78**
Revenue from interstate sale of power	652.74	891.76	1544.50
Total revenue	**6903.87**	**10114.41**	**17018.28**

3.1.15 Revised ARR for the FY 2015-16

In view of the above analysis, the Commission approves the revised ARR for UHBVNL and DHBVNL as per the details provided in the table(s) below.

Table: True-up of UHBVNL for the FY 2015-16 (Rs. Crore)

Particulars	Approved	Actual	Revised ARR for FY 2015-16
Power purchase cost	8800.12	9994.81	9474.96
Operations and Maintenance Expenses	1103.35	880.39	880.39
Depreciation	232.47	239.83	239.83

Net Interest on term loan	120.74	147.41	146.35
Interest on Security Deposit	69.10	57.77	37.07
Interest on Working Capital	152.00	1365.13	148.67
Cost of raising finance and bank charges	0	2.43	2.43
Total Interest and Finance Charges	**341.84**	**1572.74**	**334.52**
Other Debits	0.00	39.88	4.09
Prior period debits/ credits		-25.23	-25.23
Return on Equity Capital	0	0	0
Total Expenditure	**10447.57**	**12702.42**	**10908.56**
Non Tariff Income	-161.45	-248.30	-182.99
ARR	**10286.12**	**12454.12**	**10725.57**

Table 3.14 True-up of DHBVNL for FY 2015-16 (Rs. Crore)

Particulars	Approved	Actual	Revised ARR for FY 2015-16
Power purchase cost	**12306.33**	**12500.41**	**12839.28**
Operations and Maintenance Expenses	**827.05**	**1137.45**	**1137.45**
Depreciation	**202.26**	**199.89**	**199.89**
Net Interest on term loan	134.16	103.25	99.90
Interest on Security Deposit	94.01	15.41	15.41
Interest on Working Capital	186.00	1105.02	208.97
Cost of raising finance and bank charges	10.00	1.62	1.62
Interest on FRP Borrowings	0.00	546.89	0.00
Total Interest and Finance Charges	**424.17**	**1772.19**	**325.90**
Other Debits	**0.00**	**32.49**	**26.57**
Prior period dibits/ credits	**0.00**	**-0.51**	**-0.51**
Return on Equity Capital	**0.00**	**0.00**	**0.00**
Total Expenditure	**13759.81**	**15642.94**	**14528.58**
Non Tariff Income	-149.83	-224.46	-224.46
ARR	**13609.98**	**12810.06**	**14304.12**

3.1.16 True-up of RE Subsidy for the FY 2015-16

The Commission had determined RE subsidy of Rs. 6196.91 Crore payable by the State Government to the Discoms for the FY 2015-16 based on an estimated CoS of Rs. 7.34 (CoS on LT supply) per unit for A.P. supply of 8570.73 MU. As the total ARR has now been revised because of the True-up of the FY 2015-16 and the quantum of power supplied to AP consumers during the FY 2015-16 has also been revised, based on actual; the subsidy for AP supply payable by the State Government also needs to be revised to the increase in quantum of sale to the AP tube-well consumers to 8906.74 Mus and to reflect the increase in CoS by 10%.

The final revenue gap, on account of true-up along with carrying cost has been taken forward in the approved ARR for the FY 2017-18. The details are as per table below.

Table: True up for FY 2015-16

True up of subsidy and revenue gap		As per ARR Order	As per True- up Order
Revised ARR for UHBVNL	Rs. Crores		10725.57
Revised ARR for DHBVNL	Rs. Crores		14304.12
ARR for FY 2015-16	Rs. Crores	23926.3	25029.70
Interest on FRP borrowings	Rs. Crores	312.71	0
Revenue gap for the FY 2013-14 including Holding Cost	Rs. Crores	1516.94	1516.94
Less FSA determined for the FY 2015-16 vide order dated 03.03.2017	Rs. Crores		1377.94
Total revenue requirement		25755.95	25168.70
Total sales for FY 2015-16	MU	35984.68	31967.28
Average Cost of supply for FY 2015-16	Rs.	7.16	7.87
% increase in average cost of service	%		10.00%
Voltage level cost of service used for calculation of subsidy for the FY 2015-16		Rs. 7.34	7.34
Adjusted Cos based on revised ARR			8.07
AP units sales in FY 2015-16	MU	8570.73	8906.74
True up Subsidy for FY 2015-16 (based on Adjusted CoS as above)	Rs. Crores	6196.91	7044.17
Revenue from sale of power as per audited accounts	Rs. Crores		17018.28
Total revenue including subsidy	Rs. Crores		24062.45
Balance Revenue gap for FY 2015-16 on account of true up to be carried forward	Rs. Crores		-1106.25

3.1.17 Fuel Surcharge Adjustment

The Commissions, in the True- up of the FY 2015-16 has Trued-up the power purchase cost for the FY 2015-16. However, the FSA determined vide HERC Order dated 03.03.2017 for the FY 2015-16 amounting to Rs. 1377.94 crores has been reduced from the true up calculations as the same is already being recovered as FSA and including the same here also would lead to double recovery from the consumers as well as the State Government. Similarly, the revenue from FSA has also been excluded.

3.2 ARR Determination for the FY 2017-18

The ARR for the FY 2017-18 filed by the Discoms have been considered and Commission's analysis and Order on each of the expenditure items are given in the paragraphs that follow.

3.2.1 Agriculture Tube Well Sales for the FY 2015-16, FY 2016-17 (revised) & FY 2017-18 (projected)

The Commission has examined the submissions of the Discoms (UHBVNL and DHBVNL) regarding AP Sales for FY 2015-16, FY 2016-17 and FY 2017-18 as under:-

Sales Projection / Estimation Methodology

Prior to segregation of AP feeders in the FY 2009-10, estimation of AP Sales was being done by the Commission based on the Annual Average Load Factor (ALF) i.e. ALF of metered AP Sales applied to the projected connected load of metered as well as unmetered AP Consumers. However, this methodology suffered from the limitations due to the fact that connected load particularly of the unmetered category was far from accurate thereby distorting the ALF itself. Further, due to the fact that a large number of AP meters were also dead and defective, hence, actual AP Sales claimed by the Discoms and those arrived at by using the ALF methodology were at variance. Thus, upon segregation of AP Feeders at 11 KV, the Commission considered it appropriate to change the methodology of estimating AP Sales as the actual consumption recorded on segregated 11 kV AP feeders during the previous year provided a firm starting point for estimating sales. However, as the sales has to be estimated at the tube-well consumers end and the fact that there are still significant number of un-metered A.P. consumer and reliability of meters installed at the metered AP Consumers tube-well due to a large number of such meters being dead / defective, was doubtful. Hence, the Commission, after analysing the data in entirety, arrived at a loss factor of 16% between the energy recorded at the 11 KV Feeders and point of sales to estimate AP Sales at Consumers' end. The said loss factor has been continued with as it is also corroborated by the difference in input energy on segregated AP feeders and the energy actually billed at the consumers end

Further, as certain numbers of AP connections are added during the year the expected load growth was also built into the AP Sales estimation methodology. As this methodology is more scientific and minimises estimation errors, the Commission has considered it appropriate to continue with the same methodology in the present Order. Further, as far as projected sales for consumer categories, other than AP, is concerned the Commission has considered the CAGR of actual sales for the last three years with some extrapolations and adjustments (jind Circle) as required to complete the data

series for quantifying the actual AP sales of the two distribution licensees true up for the FY 2015-16, revised estimated for the FY 2016-17 and projected for the FY 2017-18 are as given in the following paragraphs.

3.2.2 True up of AP Sales for FY 2015-16 (True-up of RE Subsidy)

On initial scrutiny of the ARR petition (s), the Commission had observed that the month wise data of AP consumptions recorded on segregated AP feeders and consumption of AP consumers fed from other feeders was not provided. Accordingly, the Discoms, vide memo dated 31.01.2017, were asked to submit data on AP consumption along with other information pertaining to ARR filing. The Discoms, subsequently, submitted the complete AP sales data of AP Segregated feeders for the 2015-16, which has been taken into account for the purpose of present estimation.

On perusal of the AP sales data for the FY 2015-16, as submitted by the Discoms, AP consumption of the two licensees has been worked out as under:-

1. AP consumption (MUs)	**UHBVN**	**DHBVN**
2. AP units MUs as recorded on segregated AP feeders (In	4650.09	5916.52
3. Loss Factor at Consumers End	16%	16%
4. Net consumption MUs from AP feeders {1X(1-0.16)}	3906.07	4969.86
5. **Add** AP MUs on other feeders	45.98	106.60
6. **Less** Consumption MUs of other category consumers on segregated AP feeders	15.97	105.83
7. Total AP consumption MUs (4+5)-6	3936.09	4970.65
8. Total AP consumption MU (UHBVN+DHBVN)	**8906.74**	
9. Total AP consumption tariff Order dated 01.08.2016	8707	
10. Total AP consumption tariff Order dated 07.05.2015	8571	

Accordingly, the actual consumption of AP consumers of the two Discoms for FY 2015-16 now works out to 8906.74 MUs (say 8907 MUs) as against 8571 MUs approved by the Commission in the ARR/Tariff Order dated 07.05.2015. Increase in AP sales in mainly attributed to DHBVNL. **Consequently, for True-up of RE subsidy of the two Discoms for the FY 2015-16, the trued-up AP consumption has been taken as 8907 MUs.**

3.2.3 AP Sales Estimation for the FY 2016-17 & FY 2017-18

Assuming an annual growth of 5% over the actual AP consumption calculated for

the FY 2015-16, the Discoms, in their Annual Performance Review petitions for the FY 2016-17 (including projected Annual Revenue Requirement for FY 2017-18 and True-up for FY 2015-16) have indicated the AP consumption for the FY 2016-17 and the FY 2017-18 as under:-

Sr. No.	AP sales (MUs)	FY 2016-17	FY 2017-18
1	In respect of UHBVNL	4178.69	4387.62
2	In respect of DHBVNL	5209.05	5469.50
3	Total AP Sales of two Discoms (1+2)	9387.74	9857.12

Whereas, the Commission in its tariff Order dated 01.08.2016 had considered and approved AP sales of both Discoms to the tune of 9094 MUs (4196 MUs for UHBVNL and 4898 MUs for DHBVNL). It is apparent from the table above that the Discoms have projected AP sales during FY 2016-17 and FY 2017-18 on the higher side for the FY 2016-17 vis-a-vis that estimated by the Commission and has further escalated the same by 5% to arrive at the estimated figure for the FY 2017-18.

The Commission has examined the AP Sales data emanating from the 11 KV AP segregated feeders as provided by the Discoms for the FY 2014-15, 2015-16 and 2016-17 respectively for DHBVNL and UHBVNL as provided by them. The AP sales of both Discoms, for the period under reference, have been worked out as under after adjusting with a loss factor of 16% as per the methodology previously mentioned in the present Order as under:-

AP consumption (MUs)	UHBVN (2015-16)	DHBVN (2015-16)
AP units as recorded on segregated AP feeders (In MUs)	4795.75	5950.71
Loss @ 16%	767.32	952.11
Net consumption from AP feeders	4028.43	4998.60
Add AP units on other feeders	56.67	129.59
Less Consumption of other category consumers on segregated AP feeders	18.42	93.05
Total AP consumption	4066.17	4962.25
Total AP consumption of two Discoms (rounded off)	**9028**	
Total AP consumption approved by Commission in its tariff Order dated 01.08.2016	9094.00	

Accordingly, the Commission has considered it appropriate to revise the AP consumption for FY 2016-17 to 9028 MUs against 9094 MUs approved by the Commission in the ARR/Tariff Order dated 01.08.2016.

The data submitted by the Discoms (from FY 2011 to FY 2016) reveals that the AP load is growing at the CAGR of 6.44 %. However, on the other side, the AP

consumption is growing at the CAGR of 1.83 % and as such AP sales are expected to grow accordingly. The relevant data is as under:-

Period	FY 14-15	FY 15-16	FY 16-17	CAGR
Total AP sales of Discoms (MUs)	8707	8907	9028	1.83%

In view of the above, the Commission considers it appropriate to take into account an annual load growth of 1.83 %, as worked out form the AP consumption data projected by the Discoms for projecting the future AP sales for FY 2017-18. Accordingly, the Commission allows following revised AP sales for the two Distribution Licensees for FY 2016-17 and FY 2017-18.

Sr. No.	AP sales (MUs)	FY 2016-17	FY 2017-18
1	In respect of UHBVNL	4066	4140
2	In respect of DHBVNL	4962	5053
3	Total AP Sales of two Discoms (1+2)	**9028**	**9193**

3.2.4 Sales Estimation (Metered other than AP Tube-well)

The Commission had considered the methodology adopted by the Discoms for projecting consumer category wise sale for categories other than AP Tube-well consumers based on CAGR of previous years data from the FY 2009-10 to the FY 2014-15 for connected load, sales and resulting consumer category wise specific consumption (kWh/KW). The Commission observes that the time series considered by the Discoms i.e. up to the FY 2014-15 is too distant in the past, hence, the same given the aberrations in connected load figures and not taking into account the contract demand of certain categories of consumers where applicable, may not reflect the true-picture in the FY 2017-18. Hence, the Commission has considered it appropriate to continue with its methodology as adopted in its previous Order as the same, given the fact that sales are metered and the date is available up to the 1st Half of the FY 2016-17, is likely to yield a more accurate estimation for the FY 2017-18. The methodology is discussed at length in the paragraphs that follow:-

i) The category-wise energy sales for 1st half and 2nd half of the FY 2012-13 to FY 2016-17 (1st half) as provided by the Discoms (actual figures) were considered.

ii) The three year category-wise energy sales CAGR for 2nd half is computed as under:-

$$\text{2nd Half Energy Sales CAGR} = \left(\left(\frac{\text{Energy Sales for 2nd half of FY 2015-16}}{\text{Energy Sales for 2nd half of FY 2012-13}}\right)^{1/3} - 1\right) \times 100$$

iii) The three year category-wise energy sales CAGR for full year is computed using the following formula:-

$$\text{Full year Energy Sales CAGR} = \left(\left(\frac{\text{Energy Sales for FY 2015} - 16}{\text{Energy Sales for FY 2012} - 13}\right)^{1/3} - 1\right) \times 100$$

iv) The category-wise energy sales for 2nd half of the FY 2016-17 is arrived at by multiplying category-wise energy sales for the 2nd half of the FY 2015-16 with the 2nd half category-wise energy sales CAGR.

v) The category-wise energy sales for FY 2016-17 is then arrived at by adding the energy sales for 1st half of the FY 2016-17 and sales for the 2nd half of the FY 2016-17.

vi) The category-wise energy sales for the FY 2017-18 is arrived at by multiplying full year category-wise energy sales for the FY 2016-17 arrived at as above with the full year category-wise energy sales CAGR arrived at as per Sr. No. v.

Accordingly, the Commission approves consumer category wise energy sales for the FY 2017-18 as per the details provided in the table below.

Table: Approved Sales FY 2017-18 (MUs)

Consumer Category	Discoms Projection (MU)		HERC Approved (MU)	
	UHBVN	DHBVN	UHBVN	DHBVN
Domestic (DS)	3059.87	4859	3515.43	5313.18
Non Domestic	1362.83	3167	1431.87	2943.24
HT Industry	4259.98	4895	4238.15	5028.86
LT Industry	1094.01	1025	1082.32	1098.62
Lift Irrigation	27.41	198	72.83	148.18
Agriculture	4387.62	5478	4140	5053
Bulk Supply	287.19	644	323.13	641.63
Railway Traction	162.67	153	196.69	184.86
Street Light	40.66	82	51.89	95
MITC	-	-	6.53	0
Public Water Works	405.89	537	411.89	596.11
Total	15088.13	21038	15470.73	21102.68

The consumer category wise sales approved by the Commission are based on CAGR as previously mentioned. Further, given the surplus power availability in Haryana there may not be any need to purchase short-term power or drawl under UI mechanism in a low grid frequency regime. **However, in case such purchase is required to manage day-to-day operations the power purchase rate should not exceed the average per unit cost of power approved by the Commission in the present Order.**

3.2.5 Power Purchase volume

3.2.5.1 Projections by UHBVNL / DHBVNL

Haryana Power Purchase Centre (HPPC) was set up to manage the bulk power purchases (both intrastate and interstate) and bulk supply functions for two distribution licensees i.e. UHBVNL and DHBVNL. It has been submitted that energy availability at the State periphery has been projected based on the allocated share to Haryana form the Central Generating Stations, State Generation, Independent Power Producers and other Generating Stations. Further, energy availability from all the available sources have been calculated based on the average PLF of the FY 2012-13 to the FY 2015-16. The impact of Interstate losses on the Interstate Generating stations has also been taken while calculating the availability at the State periphery.

Accordingly, the total power availability for the FY 2017-18 from all external and internal sources i.e. NTPC, NHPC, NPCIL, SJVNL HPGCL, BBMB stations, IPPs, Co-generation, renewable energy generation etc. has been projected by the Discoms at 52958.47 MUs as against 47557.66 MUs actual scheduled energy during the FY 2016-17 (up to February, 2017).

3.2.5.2 Commission's Estimate of Power Purchase Quantum

The Commission has considered the methodology for projecting power purchase quantum for the FY 2017-18 by the Discoms and observes that each year the Central Electricity Authority (CEA), in discharge of its statutory functions, carries out a detailed exercise for arriving at the annual generation target. The generation targets are arrived at by the CEA based on discussions with the respective states, the generation programme given by Generators, the performance of the generating stations, planned maintenance requirement and average forced outages during the last few years as well

as anticipated coal supply scenario in case of the thermal power stations. The CEA, for 2017-18, has finalised the generation targets and circulated the same vide its memo no. CEA/GO&D/OPM/PPI/5/1/2017/1128-1282 dated 28.02.2017 which can also be downloaded from their website i.e. www.cea.nin.in.

In order to estimate the power availability in Haryana (both UHBVNL and DHBVNL) in the FY 2017-18, the Commission has considered the following:-

(a) CEA's generation target for FY 2017-18 for thermal power stations, hydro and nuclear power stations for which generation targets have been determined.

(b) Allocated share of Haryana in the respective generating stations have been considered for arriving at the quantum of power that is expected to be available to Haryana from various sources.

(c) Past trend of actual generation achieved vis-a-vis CEA's generation targets.

(d) HPGCL's generation targets as approved by the Commission for FY 2017-18 vide Order dated 26th April, 2017 in Case No. HERC/PRO-38 of 2016.

(e) Expected generation targets from new generating stations as proposed by the Discoms.

(f) CEA's generation targets, wherever considered, has been adjusted for auxiliary energy consumption as per CERC norms.

(g) As the Power Purchase Agreements have been allocated to UHBVNL & DHBVNL in equal ratio and HPPC procures power on behalf of both the Discoms, the projection of power availability is for Haryana as a whole.

In line with the broad methodology spelt out above, the Commission, for the limited purpose of assessing power availability from various generating stations in the FY 2017-18 has proceeded as follows. It is presumed that the Discoms have a valid PPA duly approved by the Commission for all the proposed sources of power for which approval has been sought. Hence, in no manner the sources, as considered by the Commission, in its present Order, should be construed as approval of PPA unless the

Commission, vide a specific order has accorded approval to the PPAs. The Commission further observes that the Discoms, for estimating the sources of power / quantum in the FY 2017-18, has included generating stations like Pragati Power, Teesta III (Sikkim IPP), Siang Middle HEP, Kameng HEP, NCTPS (Dadri II – where no quntum of drawl has been indicated but fixed charges has been taken into account) etc. without approval of PPA from the Commission. Hence, such sources have not been considered by the Commission. Additionally, it is observed that certain generating stations of NTPC i.e. Anta , Auraiya CCGT etc. have completed their useful life as per CERC Regulations.

The Discoms are directed to examine all such PPAs including the relevant clause w.r.t. validity and CERC's Order on the same regarding balance useful life, if any, and submit a report to the Commission within one month bringing out the quantum of energy scheduled / implemented schedule and cost (fixed and fuel separately) thereto in the FY 2015-16, FY 2016-17 and FY 2017-18 year to date. The Discoms may also examine the need to procure power from yet to be commissioned Central thermal Generating Stations for which PPAs have not been approved by the Commission including yet to be commissioned UMPPs. In case power procurement from such stations are not required the Discoms / HPPC may consider whether the commitments / allocations from such sources could be terminated on valid grounds. A report in this regard should also be submitted to the Commission within one month.

i) Availability of power from HPGCL

The Commission has considered power availability at the bus bar from HPGCL sources as per its Order dated 26th April, 2017 in Case No. HERC/PRO-38 of 2016 in the matter of HPGCL's Petition on determination of HPGCL's Generation Tariff for the FY 2017-18. The details of the same are mentioned in the said Order. Hence, for the sake of brevity, they are not being re-produced here.

The power availability (ex–bus energy in MUs) from HPGCL's Power Plants as determined by the Commission in its Order dated ibid Order is presented in the table below:-

Particulars	Discoms Proposal	HERC Approval
HPGCL	11,757.10	17,252.66

ii) Availability of Power from Faridabad CCPP (FGPP)

The Discoms Power Purchase Agreement (PPA) with 432 MW Faridabad gas based power station of NTPC expired on 31.12.2015. On the petition filed by the HPPC the Commission passed the Order dated 5.10.2106 as under:-

> *"….the Commission considers it appropriate to approvethe PPA with Faridabad Gas Power Plant (NTPC) up to 31st December, 2025, as proposed by theHPPC/NTPC subject to the following conditions:-*
> *i) Draft PPA for the above period shall be amended suitably as per the observations communicated by the Commission in the matter.*
> *ii)HPPC/Discoms shall schedule power on APM Gas only.*
> *iii) NTPC shall be free to sell, to a third party outside Haryana, any power that may be generated by NTPC using fuel other than APM Gas. To that extent, the fixed cost liability of HPPC shall be accordingly reduced. The condition 4.0 (para 4) of the PPA shall be modified suitably".*

As FGPP is a generating station dedicated to Haryana, the Commission, based on generation target finalized by CEA, has considered 1213.47 MUs to be available to the Discoms in the FY 2017-18. This approval is subject to the ibid Order of the Commission. The Commission's approved volume of power from FGPP is as under:-

Faridabad Gas Power Project (NTPC) (MU)

Particulars	Discoms Proposal	HERC Approval
Faridabad CCGT	1401.81	1213.47

iii) Availability of power BBMB (Bhakra, Dehar & Pong)

The Discoms have share (to the extent of shares owned by HVPNL) in capacity entitlement to the extent of 33.02% in Bhakra, 32.02% in Dehar, 16.67% in Pong (all BBMB stations). The Commission observes that as per Discoms submissions, 2980.82 MUs were available from BBMB power stations in the FY 2015-16 and the same quantum has been projected for the FY 2017-18. The Commission has considered the CEA's generation targets for the BBMB Stations for the FY 2017-18 available separately for Bhakra & Upratings, Dehar and Pong, Accordingly, the Commission approves as under:-

Power Availability from BBMB (MUs)

Particulars	Discoms Proposal	HERC Approval for the FY 2016-17
BBMB	2980.82	2622.38

iv) Availability of power from NTPC Power Stations

The Commission observes that 3835.01 MU of energy was available from the NTPC sources (except FGPP which had been separately dealt with) in the FY 2016-17 and the Discoms have projected marginally lower availability from these sources in the FY 2017-18 i.e. 3820.81 (excluding FGPP). The Commission has considered the station wise generating targets fixed by the CEA for the FY 2017-18 except in the case of Unchahar III, Auraiya, Dadri and Kahalgaon. Accordingly, corresponding to the allocated share of Haryana in the various power stations of NTPC the Commission approves the quantum of power as per table below.

Power Purchase Volume from NTPC

Particulars	Discoms Proposal (MU)	HERC Approval (MU)
Singrauli STPS	1396.81	1326.66
Rihand I	411.92	434.17
Rihand II	369.08	380.73
Rihand III	362.94	374.39
Unchahar I	63.79	51.73
Unchahar II	133.41	108.19
Unchahar III [1]	69.48	69.48
Anta CCPP	60.90	33.55
Auraiya CCPP [2]	18.51	18.51
Dadri CCPP [3]	40.37	40.37
Farakka STPS	56.94	85.55
Kahelgaon I [4]	133.92	133.92
Kahelgaon II	402.96	341.10
Koldam HEP	299.78	299.78
Total	**3820.81**	**3698.13**

Note 1 to 4: the Commission has restricted drawl from these sources as proposed by the Discoms.

v) Availability of Power from NHPC Power Plants

The Commission, for projecting power availability from NHPC sources in the FY 2017-18 has relied upon generation targets fixed by the CEA after adjusting the same for auxiliary energy consumption and home State share. The generating station wise details are as under:-

Power purchase volume from NHPC

Particulars	Discoms Proposal (MU)	HERC Approval (MU)
Bairasiul	204.64	182.18
Salal I	484.25	435.57
Tanakpur	19.29	24.93
Chamera I	375.06	318.68
Chamera II	88.01	71.66
Chamera III	67.65	79.42
Uri	151.37	130.20
Uri II	49.70	55.46
Dulhasti	125.42	104.17
Dhauliganga	39.74	54.37
Sewa II	33.13	26.24
Parbati III	45.03	51.45
Total	**1683.29**	**1534.33**

vi) Availability of Power from NPCIL sources

The Commission observes that the CEA has now finalised the generation targets for the FY 2017-18, hence the power availability from NPCIL (NAPP and RAPP) to the Discoms have been accordingly calculated in table below.

Power Purchase Volume from NPCIL

Particulars	Discoms Proposal (MU)	HERC Approval (MU)
NAPP	175.81	180.11
RAPP (3,4,5,6)	593.49	469.24
Total	**769.30**	**649.35**

vii) Power Purchase from Other Sources

(a) Power Procurement from a few other sources proposed by the Discoms include CGPL, Mundra (UMPP), Sasan UMPP, APCL, DVC (Mejia B, Koderma & Raghunathpur), Adani Power Ltd., Mundra, THDC, MGSTPS (CLP), Lanco Amarkantak, Teesta III etc. The Commission has considered the CEA generation targets for the FY 2017-18 wherever available. In cases where generation targets are not available the proposals of the Discoms have been accepted.

(b) The Commission has not considered the power from Pragati Gas Power Plant, Bawana, Delhi being costly on the merit order and also the PPA, so far, has not been approved by the Commission. Further power availability from Teesta III HEP (Sikkim) has not been considered due to many folds cost overrun and extended force majeure. The Discoms / HPPC may file the details in this regard including admitted capital cost and tariff determined by the Hon'ble CERC in this regard. The source wise details are as per table below:-

Power Purchase from Other Sources

Particulars	Discoms Proposal (MU)	HERC Approval (MU)
CGPL, Mundra	2318.34	2435.73
Sasan UMPP	2999.10	3088.13
Pragati Gas Bawana	309.55	0
Aravali Power (IGSTPS)	1824.94	1824.94
DVC Raghunathpur	0	152.50
DVC – Mejia B	473.46	473.46
DVC – Koderma	288.67	473.51
Adani Power Ltd.	9780.38	9780.38
MGSTPS (CLP) Jhajjar	3913.67	3294.00
THDC Tehri Stage I	184.45	180.08
THDC Koteshwar HEP	57.76	43.19
SJVNL (Nathpa Jhakri) HEP	311.36	250.43
SJVNL Rampur HEP	43.17	66.46
Teesta III HEP	464.85	0
Tala HEP	47.90	51.34
Total	**23017.60**	**22114.15**

viii) Availability of Power from Independent Power Producers/PTC

In addition to the power available from Central Sector, State Sector and Shared Utilities, the Discoms have projected availability of power from PTC Tala, PTC J&K, PTC Karcham Wangtoo and Lanco Amarkantak etc. The Commission has ESTIMATED availability of power from these sources as per the generation targets fixed by CEA. In case the same is not available for any generating station(s) the same has been taken as per Discoms projections. The generating station wise details provided are as per table that follows.

Availability of Power from PTC

Particulars	Discoms Proposal (MU)	HERC Approval (MU)
PTC J&K (Baglihar HEP)	309.10	269.20
PTC Lanco Amarkantak TPS (Unit – 2)	1840.07	1840.07
PTC JSW Karcham Wangtoo HEP	764.46	764.46
PTC GMR Kamalanga TPS	2102.41	2102.41
Total	**5016.04**	**4976.14**

ix) Availability of Power from Renewable Energy Sources

The Commission is committed to encourage cogeneration and non-conventional fuel based generation including solar generation projects. Hence, the power purchase volume from such sources has been determined keeping in view the power availability from renewable sources in the FY 2017-18 for which the Commission has approved PPAs. The Discoms should, however, meet the solar and non-solar RPO as provided in the HERC RE Regulations in vogue. The power availability from renewable energy sources approved by the Commission is per details provided in table no. 3.23.

Availability from Renewable Energy Sources

Particulars	Discoms Proposal (MU)	HERC Approval (MU)
P&R Gogripur HEP	9.72	9.72
Bhoruka Power HEP	29.15	29.15
Puri Oil Mills HEP	13.64	13.64
Biomass Power Projects	143.06	143.06
Cogeneration (Bagasse)	271.94	271.94
SECI (Solar)	133.16	133.16
HPGCL Solar	17.50	17.50
Solar Power Projects (JNNSM & Siwana)	21.27	21.27
Total	**639.44**	**639.44**

3.2.6 Total Approved Power Purchase Quantum

Based on the above source wise approvals of quantum of power expected to be available in the FY 2017-18, the Commission determines power availability both from inter-state and intra-state generators of 54,700 MUs (rounded off) as against 52,958.47 MU estimated by the Discoms which included un-approved sources like Siang Middle HEP, Kameng HEP, Tipaimukh, Subansari ER NHPC, Pragati Gas etc.

3.2.7 Power Purchase Cost

The cost of power purchased by the Discoms is mostly a known parameter as the same is governed by the Power Purchase Agreement(s) with the IPPs/electricity traders. In the case of Central Power Sector Units (CPSU's) or generators supplying power to more than one State, the tariffs as approved by the Central Electricity Regulatory Commission (CERC) are applicable. While in the case of State Projects, i.e. HPGCL the generation tariff is determined by the HERC and in the case of NPC (RAPP & NAPP) the Department of Atomic Energy, Government of India, determines the tariff. Most of the elements constituting the total cost of generation i.e. capacity charges, base energy related charges, adjustment of base energy charges for cost of fuel and other factors, taxes, duties, incentive payments etc. are well defined and can be estimated with a reasonable degree of accuracy.

The Power Purchase cost has been estimated by the Discoms largely based on the actual variable charges of the FY 2015-16 escalated at an average rate of 5% per year multiplied with the total energy drawn from various sources to arrive at the total variable cost of power generation for the FY 2016-17. For the FY 2017-18 the variable

cost has been kept at the same level. Similarly, the fixed charges paid to the generators in the FY 2015-16 have been escalated at an average rate of 5% to arrive at the fixed charges to be paid in the FY 2016-17 and the FY 2017-18**. Accordingly, the variable charges has been projected by the Discoms at Rs. 137618.60 million and the fixed charges (including PGCIL Transmission) has been projected at Rs. 87173.60 million i.e. total charges of Rs. 224792.20 million.**

The Commission has considered the methodology adopted by the Discoms for projecting cost of power for the FY 2017-18 and observes as under:-

The Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012 read with the 1st Amendment Regulations provides as under:-

59.1 The cost of power purchased by the distribution licensees from generating stations of HPGCL shall be worked out based on the tariff determined by the Commission. The cost of power purchase from central generating stations shall be worked out based on the tariff determined by the CERC. Similarly the cost of power purchased from nuclear power stations of Nuclear Power Corporation of India Ltd. (NPCIL) shall be worked out on the basis of tariff notified by the Departmental of Atomic Energy under the Atomic Energy Act, 1961. In case of bilateral transactions, the rates as per PPAs approved by the Commission shall be considered. The cost of power purchase from other generating companies / sources shall be worked out based on invoices raised by the generators during the previous year. In absence of above, rates based on bills of energy purchased during the previous 3 months shall be considered by the Commission.

59.2 The cost of power purchase from non-conventional energy sources shall be based on the tariff determined by the Commission as per renewable energy regulations notified by the Commission and as amended from time to time or as per the PPAs approved by the Commission.

59.3 Subject to provisions of clause 59.3, any variation in cost of power purchase at the allowed transmission loss level, for reasons beyond the control of the distribution licensee, shall be allowed to be recovered by the

distribution licensee by way of FSA, as per the formula approved by the Commission and as amended from time to time. The procurement price to be adopted for working out variation in the cost of power beyond approved power purchase volume shall be the generation tariff approved by the Commission, the rate discovered through competitive bidding and adopted by the Commission or the short-term rates approved by the Commission.

59.4 Any loss on account of increase in power purchase cost, not covered above, shall be borne by the distribution licensee.

59.5 The Renewable Purchase Obligation (RPO) of the distribution licensee shall be as per the renewable energy regulations notified by the Commission as amended from time to time.

In view of the MYT Regulations, 2012, the Commission has largely based the estimation of power purchase cost as under:-

i) Generating Station wise fixed cost of power is based on the actual fixed cost incurred by the Discoms from April 2016 to February 2017 (eleven months) extrapolated for further one month.

ii) Generating Station wise Fuel / Variable Cost is based on the average of the actual variable charges / energy charges incurred by the Discoms from April, 2016 to February, 2017.

iv. In the case of Adani Power Ltd. the cost of power has been considered as per the Power Purchase Agreement.

v. The cost of power purchase from HPGCL has been considered as per the Commission's Generation Tariff Order dated 26th April, 2017 in Case No. HERC/PRO-38 of 2016 in the matter of HPGCL's Petition on determination of HPGCL's Generation Tariff for the FY 2017-18. .

A brief description of the methodology adopted by the Commission is as under:-

3.2.7.1 Cost of power from CPSUs (NTPC, NHPC & NPC)

The tariffs for power purchase from central sources have been considered at the average rate of power purchase in the FY 2016-17 from April 2016 to February, 2017 i.e. the latest period for which data was made available by the Discoms.

3.2.7.2 Cost of HPGCL power

The Commission, under sub - section 1(a) of section 86 and sub section 1(a) of section 62 of the Electricity Act 2003, has determined HPGCL's generation tariffs for the FY 2017-18 vide its order dated 26th April, 2017. The approved station wise rates in the ibid Order have been considered for determining the cost of power from HPGCL stations in the FY 2017-18.

3.2.7.3 Cost of BBMB Power

HVPNL, as per the transfer scheme notified by the Government of Haryana, has ownership interest to the extent of equity shares in BBMB projects and the corresponding share in capacities have been allocated to HPPC. HVPNL has to bear its share of net O&M cost in respect of BBMB projects, i.e. net of O&M charges less credit for HVPNL share of revenue for sale of power to common pool consumers. However, in line with the Hon'ble Appellate Tribunal's order on cost of BBMB power, the Commission allows tariff for power from BBMB as per the average actual rate of the FY 2016-17 (up to February, 2017).

3.2.7.4 Price of Power Purchased from Other Sources

The Commission has relied upon the average power purchase rate as per the FY 2016-17 invoices (from April 2016 to February 2017) raised by the generators. For RE sources where PPAs have been approved tariff has been determined / adopted by the Commission for the FY 2017-18, the same has been considered for projecting the cost of such power.

The details of approved power purchase rates (Rs/kWh),cost (Rs.Million) and quantum (Million Units), from various sources for the FY 2017-18 are presented in the table below.

Approved Volume, Rate & Cost of Power (FY 2017-18)

	Estimated Quantum (MU)	Annual Fixed Charge(Rs)	Variable charges (Rs/kWh)	Annual Variable Charge (Rs Million)	Total Charge (Rs Million)
NTPC					
Singrauli STPS	1326.66	838168316.73	1.434	1902.428	2740.597
Rihand I	434.17	366064381.09	1.623	704.654	1070.718
Rihand II	380.73	333205088.73	1.607	611.836	945.041
Rihand III	374.39	566863870.91	1.590	595.274	1162.138
FGTPS Unchhahar I	51.73	61090637.45	2.876	148.764	209.855
FGTPS Unchhahar II	108.19	131949522.55	2.870	310.507	442.456
FGTPS Unchhahar III	69.48	106481876.73	2.871	199.477	305.959
Anta CCGT	33.35	118761444.00	2.561	85.406	204.167
Auraiya CCGT	18.51	141738654.55	3.322	61.490	203.229
Dadri CCGT	40.37	157297747.64	2.799	112.996	270.293
Faridabad CCGT	1213.47	2278626392.73	2.590	3142.887	5421.514
Farakka STPS	85.55	62621389.09	2.474	211.661	274.283
Kahalgaon I	133.92	170852658.55	2.374	317.926	488.779
Kahalgaon II	341.10	516348621.82	2.275	776.002	1292.351
Kol Dam HEP	299.78	498500000.00	2.990	896.342	1394.842
NHPC					
Salal I	435.57	953800000.00	0.566	246.532	1200.332
Bairasiul	182.18	238265349.82	0.984	179.261	417.527
Tanakpur	24.93	45293165.45	1.481	36.922	82.216
Chamera I	318.68	308291085.82	1.036	330.153	638.444
Chamera II	71.66	89669138.18	0.978	70.084	159.753
Chamera-III	79.42	209121109.09	2.123	168.614	377.735
Dhauliganga	54.37	89304964.36	1.496	81.340	170.645
Dulhasti	104.17	304720217.45	2.294	238.971	543.692
Uri	130.20	121367212.36	1.139	148.296	269.663
Uri-II	55.46	218619870.55	2.241	124.284	342.904
Sewa II	26.24	76416530.18	2.294	60.202	136.618
Parbati-III	51.45	136107374.18	3.525	181.352	317.459
SJVNL HEP	250.43	**468813698.18**	1.422	356.106	824.920
Rampur HEP (SJVNL)	66.46	**156746792.73**	1.613	107.200	263.947
THDC					
Tehri Stage I HEP	180.08	**633065547.27**	2.915	524.937	1158.002
Koteshwar HEP	43.19	**97636728.00**	1.955	84.429	182.065
NPCIL					
NAPP	180.11	**0.00**	2.576	463.964	463.964
RAPP (3-4)	308.77	**195938.64**	3.071	948.224	948.420
RAPP (5-6)	160.47	**100938.09**	3.071	492.798	492.899
HPGCL	17252.66	**17642250000.00**	**3.16**	54510.987	72153.237
Shared Project				0.000	0.000
BBMB HEP	2622.38	**0.00**	**0.541**	1418.708	1418.708
DVC				0.000	0.000
DVC Mejia-B	473.46	**1250900000.00**	**2.260**	1070.020	2320.920
Koderma DVC HEP	473.51	**708127092.00**	**2.147**	1016.631	1724.758
DVC Raghunathpur TPP	152.50	**231699139.64**	**2.156**	328.790	560.489
UMPP					
CGPL Mundra UMPP	2435.73	**2352024584.73**	**1.313**	3198.113	5550.138
Sasan UMPP	3088.13	**505662788.73**	**1.495**	4616.747	5122.410
Others					
PTC Tala, HEP	51.34	0.00	2.025	103.962	103.962

	Estimated Quantum (MU)	Annual Fixed Charge(Rs)	Variable charges (Rs/kWh)	Annual Variable Charge (Rs Million)	Total Charge (Rs Million)
PTC GMR Kamalanga TPS	2102.41	1612300000.00	1.020	2144.458	3756.758
PTC Baglihar HEP	269.20	0.00	3.720	1001.434	1001.434
PTC Lanco Amarkantak	1840.07	2290922818.91	1.591	2927.551	5218.474
PTC Karchamwangtoo JSW HE	764.46	0.00	3.550	2713.833	2713.833
IGSTPP, APCPL (Aravali)	1824.94	7944658020.00	3.238	5909.156	13853.814
Pragati Gas Bawana	0.00	1004400382.91	2.520	0.000	1004.400
Adani Power Ltd. Mundra TPS	9780.38	11828100000.00	2.310	22592.678	34420.778
Teesta III HEP	0.00	838800000.00	1.71	0.000	838.800
MGSTPS, CLP, Jhajjar	3294.00	7750854039.27	3.194	10521.036	18271.890
Bhoruka HEP	29.15	0.00	3.330	97.070	97.070
P&R Gogripur HEP	9.72	0.00	4.790	46.559	46.559
Puri Oil Mill HEP	13.64	0.00	4.460	60.834	60.834
Biomass Projects	143.06	0.00	7.560	1081.534	1081.534
Cogeneration Plants	271.94	0.00	4.048	1100.813	1100.813
Solar Projects (JNNSM & Siwana)	21.27	0.00	5.670	120.601	120.601
HPGCL Solar	17.50	0.00	4.880	85.400	85.400
SECI Solar	133.16		5.500	732.380	732.380
PGCIL Transmisison		14016218448.00			14016.218
Total	**54700**	**80473023577.09**	**2.42**	132320.612	212793.636

In accordance with the source wise volume and cost of power purchase approved by the Commission as indicated in the table above, the total volume of power available in the FY 2017-18 is approved at 54700 million units (kWh) (rounded off) at a fixed cost, including PGCIL transmission charges, of Rs. cost of Rs.80473.02 millions and variable cost of Rs.132320.61. Hence, the allowed total cost of power purchase in the FY 2017-18 is pegged at Rs. 212793.636. **The average rate of power purchase (APPC) allowed by the Commission in the FY 2017-18 works out to Rs. 3.89/kWh.**

The Licensee(s) is directed to ensure that power is procured only from those sources for which the Commission has approved PPA's. Additionally, any power from Central Generating Stations, beyond the quantum for which the PPA has been signed and specifically approved by the Commission must be surrendered in case the Discoms have to backing down any approved long-term source of power. It is made clear that any power procured from sources not specifically approved by the Commission and/ or excess quantum vis-à-vis the approved PPA purchased by the Discoms shall be disallowed by the Commission.

In addition to the above and keeping in view the surplus power availability scenario obtaining in Haryana, the Commission directs that the Discoms shall not procure any additional power over and above the quantum approved in the PPA that

may be available to it from the un-allocated share / share relinquished by any other State in the Central Generating Power Stations. The Commission thereto shall disallow all such power procurements and the cost thereto.

3.2.8 Transmission Losses

For calculating energy available for sale by the Distribution licensees, the petitioners have retained the transmission losses approved by the Commission for the FY 2017-18. As the Distribution licensees do not have any control over the either transmission losses inter or intra, the transmission loss levels as proposed by the licensees have been retained for working out energy available for sales to the two Discoms in the FY 2017-18.

3.2.9 Interstate Transmission Charges

Interstate transmission charges proposed by UHBVNL and DHBVNL are Rs. 682.92 Crore and Rs. 899.22 Crore respectively i.e. a total of Rs 1582.14 Crore. However, as per the Commission's estimate, the same is likely to be Rs. 1401.6218 Crore based on the actual charges incurred by the two Discoms for the first ten months of the FY 2016-17. The approved amount, shown separately in the table that follows, shall form part of the combined power purchase cost of the Discoms for the FY 2017-18.

3.2.10 Inter-State sale of Power and Power purchase cost for Distribution licensees

UHBVNL and DHBVNL have indicated interstate sale of 3710.07 MUs and 3420.68 MU respectively for the FY 2017-18 and revenue from interstate sales has been considered at 80% of the average variable power purchase cost, excluding transmission charges, at Rs. 2.60/Unit for the FY 2017-18.

The Commission has considered the above and is of the considered view that any loss on account of interstate sale of power for FY 2017-18 ought not to be passed on to the electricity consumers of Haryana.

The Commission, in its earlier Orders, had directed the licensee to explore the possibility of the surrendering expensive long-term power that is in excess of its requirement. In case the licensee is unable to sell its contracted power at the rate of its

energy cost, it is expected to back down the units to that extent so that the loss on account of power purchase is minimised. It has been observed that, at times, the Licensees are forced to back down its contracted long term power due to less demand whereas the licensees have been agreeing to the additional allocation done by the Ministry of Power out of the unallocated portion of the Central Generating Stations which is not at all justified. Any such allocation must be surrendered at the earliest and a compliance report be filed in the Commission within one month. However, the Commission observes that no such report has been filed by the licensee. The Commission reiterates its directions and expects the licensee to comply with all directions at the earliest.

Regarding trading loss on account of sale of surplus power it is worthwhile to note the observations of the Hon'ble Aptel's Judgement dated 28th April, 2016 in Appeal No. 269 of 2014 is as under:-

> ***41.3) We are happy to note that the State Commission in a separate review order dated 14.07.2014, seeking review of an earlier tariff order dated 30.03.2013, has expressed its concern that the Discoms have already tied up with power which is in excess of requirement for at least 5 to 7 years without having a system of power procurement planning and for load optimum power cost and accordingly the State Commission has rejected the relief sought by the Discoms for recovering its trading loss from the consumers.***

As per Commission estimates, the availability of energy is considerably in excess of the estimated requirement during the FY 2017-18. In view of the above observation, the Discoms must gear up its power purchase procurement planning and strengthen its trading activities for disposal of surplus power. It would be appropriate for the licensee to closely monitor, on daily basis, the surplus capacity, which could neither be backed down nor sold off even at variable cost and is therefore leading to trading losses. The Discoms must fine tune its projection model and ensure that surplus energy available is disposed of in cost effective manner.

Energy available for Sale to the Distribution Licensees (FY 2017-18)

Sr. No.	Particulars	Units	UHBVNL	DHBVNL	Total
1	Gross energy procured from outside	MUs	9284.58	12215.42	21500.00

	the state sources				
2	Interstate sale / banking (Balancing Figure)	MUs	3356.18	4415.62	7771.80
3	Energy procured from outside the state sources net of interstate sale / banking	MUs	5928.40	7799.80	13728.20
4	Inter-state transmission losses	%	3.82%	3.82%	3.82%
5	Inter-state transmission losses	MUs	226.46	297.95	524.42
6	Net energy available from outside the state	MUs	5701.93	7501.85	13203.78
7	Add energy generated within the state	MUs	14337.12	18862.88	33200.00
8	Net energy available for use in Haryana/ Total energy at Haryana Boundary	MUs	20039.05	26364.73	46403.78
9	Intra-state transmission losses	%	2.46%	2.46%	2.46%
10	Intra-state transmission losses	MUs	492.96	648.57	1141.53
11	Energy available for sale to distribution licensee	MUs	19546.09	25716.16	45262.25
12	Distribution loss	%	20.85%	17.94%	19.20%
13	Distribution loss units	MU	4075.36	4613.48	8688.84
14	Units available for sale by DISCOMS/ Discom approved sales	MU	15470.73	21102.68	36573.41
15	Total energy purchase	Rs. Mil	23621.70	31078.30	54700.00
16	Power purchase cost	Rs. Mil	91893.15	120900.85	212794.00
17	Average rate	Rs.	3.89	3.89	3.89
18	Less revenue from interstate sale of power at variable cost @Rs. 2.42/ unit	Rs. Mil	8121.96	10685.80	18807.76
	Net power purchase cost	Rs. Mil	83771.19	110215.05	193986.24
	Per unit cost for energy purchased for sale within Haryana	Rs./kWh	4.13	4.13	4.13

3.2.11 Renewable Purchase Obligation (RPO)

Section 86 (1) (e) of the Electricity Act, 2003 mandates the Commission to promote cogeneration and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person, and also specify, a percentage of the total consumption of electricity in the area of distribution licensee, for mandatory purchase of electricity from such sources.

In accordance with the Regulation 64 of HERC (Terms and Conditions for determination of Tariff for Renewable Energy Sources, Renewable Purchase Obligation

and Renewable energy Certificate) Regulations, 2010 the RPO for FYs 2011-12, 2012-13, 2013-14, 2014-15, FY 2015-16 and FY 2016-17 as approved by the Commission are as under:-

Financial year	Energy Consumption (MU)	%age of overall RPO	Renewable energy (other than Solar) required to be purchased as per overall RPO (MU)	%age of solar RPO (as a %age of overall RPO)	Energy required to be purchased as per Solar RPO (MU)	Total renewable energy required to be purchased (MU)
2011-12	36075	1.50%	541	0.31%	1.69	543
2012-13	40000	2.00%	800	0.05%*	20	820
2013-14	41086	3.00%	1191.49	0.10%*	41.09	1232.58
2014-15	45028	3.25%	1350.84	0.25%*	112.57	1463.41
2015-16	41202	2.75%	1133.05	0.75%*	309.01	1442.06
2016-17	46827	2.75%	1287.74	1.00%*	468.27	1756.01

** Solar power purchase obligation is 0.05%, 0.1%, 0.25%, 0.75% & 1.00% of total energy consumption for the financial years 2012-13, 2013-14, 2014-15, 2015-16 & 2016-17, respectively.*

As per data provided by the State Nodal Agency vide memo 232 dated 25.02.2017, the shortfall in meeting the RPO for the aforesaid years has been worked out as under:-

Type of RE source	50% backlog till FY 2015-16	Shortfall FY 2016-17	Total Shortfall
Solar	70	307	377
Non-Solar	420	0	420
Total	490	307	797

The Commission vide its order dated 20.11.2013 in case no. HERC/RA-04 of 2012, HERC/RA-08 of 2012, HERC/RA-11 of 2013 & HERC/PRO-30 of 2013 had allowed the Discoms to carry forward the shortfall in the RPO compliance for the FY 2011-12, FY 2012-13 and FY 2013-14, on actual basis, to the next financial year i.e. The shortfall should be met in the FY 2014-15 in addition to the RPO for FY 2014-15. Thereafter in the ARR/Tariff Order of the FY 2015-16 the Commission directed the Discoms to purchase renewable energy as per the RPO targets for the FY 2015-16 and the shortfall carried forward, on actual basis, for previous years. In case they can purchase the same at a tariff lower than determined by this Commission they may do so, otherwise they must purchase all such power offered to them by the renewable

energy power producers at the tariff determined by the Commission. It was further directed that the shortfall in meeting the RPO for the FY 2011-12, 2012-13, 2013-14 and 2014-15 shall also be met by the Discoms in the FY 2015-16 in addition to the RPO of FY 2015-16. In accordance with the provisions of the amended regulations, the RPO for the FY 2017-18 is 4% of the total energy consumption of the Discoms. The approved RPO for the FY 2017-18 is as under:-

Energy Consumption for 2017-18 (MU)	%age of Non solar RPO of energy Consumption	Non solar RPO (MU)	Solar RPO as %age of energy sales	Solar RPO (MU)	Total renewable energy required to be purchased (MU)
39209.18*	2.75%	1078.25	1.25%	490.11	1568.37

* Energy available for sale by DISCOMs excluding energy purchased from RE sources and Hydro.

The volume of energy to be purchased from renewable energy sources as per above table is the total RPO of the Discoms for the financial year 2017-18. Therefore, the volume of renewable energy purchase as approved by the Commission as above shall be adjusted against the total RPO of the Discoms. Further, RPO backlog of up to 31st March 2017 shall be part of total power purchase volume approved by the Commission for the FY 2016-17 and set off against the costliest power in the merit order.

The Commission has noted from the submissions of HPPC during the public hearing that they have made some progress regarding meeting the RPO targets set by the Commission, hence the shortfall as indicated above, especially for non-solar RPO, has reduced. The Commission directs the Discoms to purchase renewable energy or RECs to meet with the RPO targets set for the FY 2017-18 and also to make up for the shortfall of RPO compliance carried forward for the previous years, on actual basis. In view of Haryana Government's mandate to promote RE energy especially roof top solar and Waste to Energy, Discoms are directed to meet the maximum RPO targets from these sources.

The State government is promoting generation of solar power in the state through various initiatives. However, it is observed that the Discoms and HAREDA are unable to realise the potential of solar generation in the State in the absence of proper infrastructure. The Discoms are directed to submit an action taken report in furtherance

of the latest solar policy issued by the State Government within three month of this order.

The State Nodal Agency i.e. HAREDA shall continue submitting quarterly status of RPO met by the obligated entities for the last quarter, separately for overall RPO and solar RPO, in accordance with the provisions of regulations 66 (3) of the HERC renewable energy regulations in the format as per the table below:-

1.	Name of the obligated entity		
2.	Total Energy Consumption		
3.	Units required to meet total RPO (3.75% of total energy consumption)		
4.	Units required to meet Solar RPO (1.0%) of total energy consumption)		
5.	Units required to meet Non-Solar RPO (Total RPO – Solar RPO)		
6.	Actual Energy purchased from Solar Power Plant		
7.	Actual Energy purchased from Non-Solar Power Plant		
8.	Shortfall in Solar RPO		
9.	Shortfall in Non-Solar RPO		

Note: Details of Solar RPO and Other RPO and compliance to be reported separately.

The State Agency may suggest appropriate action to the Commission for non-compliance of the renewable purchase obligation by the obligated entities.

The Discoms and other obligated entities are directed to provide requisite information to the State Agency on monthly basis by 10th of every month for the previous month to enable the State Agency to submit quarterly report to the Commission.

3.2.12 Intrastate Transmission Charges & SLDC Charges

The Commission, vide its Order dated 31.05.2017 on HVPNL's Transmission Tariff and SLDC charges for the FY 2017-18, had approved Transmission tariff and SLDC charges for the FY 2017-18 to be recovered by HVPNL from UHBVNL and DHBVNL. The intrastate transmission charges approved include the unitary charge arising out of transmission project commissioned through Public Private Partnership (PPP) between HVPNL and M/s Jhajjar KT Transco Private Limited. The details

including monthly recovery of the transmission and SLDC charges from various beneficiates including the Discoms are given in the ibid order. Hence, the same is not being reproduced here. The transmission and SLDC Charges, as determined by the Commission in the ibid Order, shall form part of the ARR of the Discoms for the FY 2017-18.

3.2.13 Employee Cost / A&G Expenses

The Employee cost, A&G expense and Repair & Maintenance expenses together comprise the O&M expenses of the Distribution Licensee. The O&M expenses as per the MYT Regulations, 2012 are considered as controllable costs except for Terminal Benefits (TBs) which are considered uncontrollable. The O&M expenses as per these Regulations are to be worked out for the Distribution and Retail Supply Business for each year of the control period as under:-

> "The actual audited O & M expenses for the financial year preceding the base year, subject to prudence check, shall be escalated at the escalation factor of 4% to arrive at the O & M expenses for the base year of the control period. The O&M expenses for the nth year of the control period shall be approved based on the formula given below.
>
> O&Mn = (R&Mn + EMPn + A&Gn)* (1-Xn) + Terminal Liabilities
> Where,
>
> - R&Mn – Repair and Maintenance Costs of the Distribution Licensee(s) for the nth year;
> - EMPn – Employee Costs of the Distribution Licensee(s) for the nth year excluding terminal liabilities;
> - A&Gn – Administrative and General Costs of the Distribution Licensee(s) for the nth year;
>
> The above components shall be computed in the following manner.
> (a) R&Mn = K * GFA * INDXn / INDXn-1
> Where,
>
> - 'K' is a constant (expressed in %) governing the relationship between O&M costs and Gross Fixed Assets (GFA) for the nth year. The value of K will be 1.65% for DHBVN and UHBVN respectively for the entire control period;
> - 'GFA' is the average value of the gross fixed asset of the nth year.
> - 'INDXn' means the inflation factor for the nth year as defined herein after.

(b) EMPn (excluding terminal liabilities) + A&Gn = (EMPn-1 + A&Gn-1)*(INDXn/ INDXn-1)

Where,

- INDXn – Inflation Factor to be used for indexing the Employee Cost and A&G cost. This will be a combination of the Consumer Price Index (CPI) and the Wholesale Price Index (WPI) for immediately preceding year and shall be calculated as under:

- INDXn = 0.55*CPIn +0.45*WPIn."

It has further been provided in these Regulations vide Note 1 appended below Regulation 57.3 that "For the purpose of estimation, the same INDXn value shall be used or all years of the control period. However, the Commission shall consider the actual values of the INDXn at the end of each year during the annual performance review exercise and True-up the employee cost and A&G expenses on account of this variation."

In the MYT Order dated 29.05.2014 for Distribution Retail Supply Business for FY 2014-15, the Employee Cost (excluding TBs) and A&G expenses for FY 2014-15, FY 2015-16 and FY 2016-17 were worked out based on audited expenses under these heads for FY 2012-13 using an indexation factor (INDX) of 9.21%. The projected employee cost and A&G expenses as proposed by UHBVNL and DHBVNL for the FY 2017-18 are based on audited cost for the FY2015-16 and escalated by indexation factor of 3.80% per annum. Further, UHBVNL and DHBVNL have assumed an increase of 20% and 15% respectively on account financial impact of of 7th pay Commission report.

The Commission has examined the calculation of indexation factor used by the Licensees and finds it appropriate. However, the Commission has assumed an increase of 15% over the audited expenses for the FY 2015-16 to account for the impact of 7th Pay Commission Report, in order to have uniformity in projections for both the Discoms. However, any variation in the employees cost because of either the inflation or on account of the impact of implementation of the 7th Pay Commission recommendations shall be allowed to both the Discoms separately at the time of True-up.

Accordingly, the Employee Cost for the FY 2017-18 has been worked out as under:-

Approved Employee Cost for FY 2017-18 (Rs.Crore.)

Sr. No.	Particulars	UHBVNL	DHBVNL
1.	Employee Cost excluding Terminal Benefits for the FY 2015-16 as per Audited Accounts	498.50	637.68
2.	15% increase to account for financial impact of 7th Pay Commission Report	74.78	95.65
3.	Indexation Factor for FY 2016-17 & FY 2017-18	3.80%	3.80%
4.	Employee Cost excluding Terminal Benefits for FY 2017-18	617.66	790.12

The employee cost (excluding Terminal Benefits) for the FY 2017-18 is approved at Rs.617.66 Crore for UHBVNL and Rs.790.12 Crore for DHBVNL.

3.2.14 A & G Expenses

The A&G expenses for FY 2017-18 have also been worked out based on the inflation indexation factor of 3.80% per annum on the same lines as Employee Cost as under:-

Approved A&G Expenses for FY 2017-18 (Rs.Crore.)

	Particulars	UHBVNL	DHBVNL
1.	A&G expenses for FY 2015-16 as per Audited Accounts	75.24	72.13
2.	Indexation Factor for FY 2016-17 & FY 2017-18	3.80%	3.80%
3.	A&G Expenses for FY 2017-18	81.06	77.72

Accordingly, the A&G expenses for FY 2017-18 are approved at Rs. 81.07 Crore and Rs. 77.72 Crore, as proposed for UHBVNL and DHBVNL respectively.

3.2.15 Repair & Maintenance

UHBVNL and DHBVNL have proposed R&M expenses of Rs. 130.64 Crore and Rs. 114.16 Crores respectively for the FY 2017-18 @ 1.65% of average GFA for the FY 2017-18 based on the estimated capital expenditure for FY 2016-17 and the FY 2017-18 in accordance with the MYT Regulations.

The Commission has restricted the proposed capital expenditure for the FY 2016-17 and FY 2017-18 for UHBVNL in view of the reasons recorded in the present Order at relevant paragraph. The resultant calculations of R&M expenses are also on the lower side. The R&M expenses for DHBVNL are approved as proposed i.e. Rs. 114.16 Crores.

The approved R&M expenses for the FY 2017-18 are as given below:

Particulars	UHBVNL	DHBVNL
Opening GFA as approved by the Commission	7065.04	
Closing GFA as approved by the Commission	7837.21	
Average GFA for the FY 2017-18	7451.12	
R&M expenses @ 1.65% of average GFA	122.94	
R&M expenses after indexation @ 3.80% p.a.	127.62	114.16

3.2.16 Terminal Benefits

The Commission approves the expenditure towards terminal benefits for the FY 2017-18 as proposed by UHBVNL and DHBVNL respectively at Rs. 400 Crore and Rs. 385 Crores, as the proposed expenditure is considered reasonable.

3.2.17 O & M Expenses

Based on the above calculation, the O & M expenses approved by the Commission for FY 2017-18 are Rs. 1225.09 crore as against Rs. 1288.05 crore proposed by UHBVNL and Rs. 1367 crore as against Rs. 1392.76 crore proposed by DHBVNL in accordance with the methodology as prescribed by the MYT regulations. **However, the Commission directs the licensee ensure that the actual O&M expenses for the FY 2017-18 are within the O&M expenses approved by the Commission.** The details of O&M expenses of UHBVNL and DHBVNL are provided in the tables that follow.

O & M expenses of UHBVNL for the FY 2017-18

(Rs. Crore)

Particulars	Audited expensed For the FY 2015-16	UHBVNL filing	HERC order
Employee Expense	498.49	676.35	617.66
A&G Expense	75.24	81.06	81.06
R&M Expense	38.39	130.64	127.62
Terminal Liability	268.27	400.00	400.00
Total	880.39	1288.05	1226.34

O & M expenses of DHBVNL for the FY 2017-18

(Rs. Crore)

Particulars	FY 2017-18	FY 2017-18	FY 2017-18
Particulars	Audited expensed For the FY 2015-16	DHBVNL filing	HERC revised approval
Employee Expense	637.68	815.88	790.12

A&G Expense	72.13	77.72	77.72
R&M Expense	35.64	114.16	114.16
Terminal Liability	392.00	385.00	385.00
Total	1137.45	1392.76	1367.00

3.2.18 Depreciation

UHBVNL has proposed depreciation of Rs. 339.37 crore in their ARR petition for FY 2017-18 based on opening balance of GFA as on 01.04.2016 and its projections of capital expenditure for FY 2015-16 and FY 2017-18.

The Commission, as previously noted, has restricted the Capital expenditure for UHBVNL for the FY 2016-17 and FY 2017-18 in view of the reasons recorded at the relevant paragraphs of this order. Based on the audited average rate of depreciation of 4.60% for FY 2015-16 and the approved capital expenditure for FY 2015-16, FY 2016-17 and FY 2017-18, the depreciation for FY 2017-18 for UHBVNL is approved at Rs. 325.13 crore. The Depreciation on assets funded through consumer contribution Rs. 14.96 crore is reduced from the above amount to arrive at net approved depreciation of Rs. 310.17crore for FY 2017-18. As per its audited accounts for the FY 2015-16, the licensee has transferred to DHBVNL grant amounting to Rs. 394.82 crores equivalent to its share of Jind Circle which has resulted in the reduction of depreciation on assets funded through consumer contribution.

Depreciation of UHBVNL for FY 2017-18

(Rs. in crore)

Particulars	FY 2017-18	FY 2017-18
Gross Fixed Assets (GFA)	**UHBVNL proposal**	**HERC approval**
Opening GFA	7430.42	7065.04
Opening GFA funded through consumer contribution/ grants	692.09	325.04
Depreciation Rate	5.03%	4.60%
Depreciation amount	373.44	325.13
Less depreciation on assets funded through consumer contribution	34.07	14.96
Net depreciation for the year	339.37	310.17

Similarly, DHBVNL has proposed depreciation of Rs. 388.80 crore in their ARR petition for the FY 2017-18 based on opening balance of GFA as on 01.04.2016 and its projections of capital expenditure for FY 2015-16 and FY 2017-18. Based on the audited average rate of depreciation of 4.53% for FY 2015-16 and the approved capital expenditure for FY 2015-16, 2016-17 and FY 2017-18, the Commission approves Rs.

361.87 crore as depreciation for FY 2017-18 for DHBVNL. The Depreciation on assets funded through consumer contribution Rs. 73 Crore is reduced from the above amount to arrive at net approved depreciation of Rs. 288.87 crore for the FY 2017-18 as given in table below:-

Depreciation of DHBVNL for the FY 2017-18

(Rs. Crore)

Particulars	FY 2017-18	FY 2017-18
Gross Fixed Assets (GFA)	**DHBVNL proposal**	**HERC approval**
Opening GFA	7881.07	7992.50
Opening Assets funded through consumer contribution/ grants	1708.31	1708.31
Depreciation Rate	4.93%	4.53%
Depreciation amount	388.80	361.87
Less depreciation on assets funded through consumer contribution	73.00	73.00
Net depreciation for the year	315.80	288.87

3.2.19 Interest on Term Loan

The UHBVNL and DHBVNL have proposed to recover Rs. 119.98 crore and Rs. 122.06 crore as interest on term loan for the FY 2017-18. The Commission has examined the calculation of term loan interest proposed by the Licensees and finding them reasonable, approves the same.

3.2.20 Interest on Consumers' Security Deposit

The Commission, in its earlier Orders has directed the licensees to ensure that the interest on consumer security deposit is duly paid on time. The Consumer security deposit is a source of cheap working capital finance for the licensee and adequate security ensures consumer compliance in timely payment of bills. Therefore, it is imperative that the interest due on these deposits, if not paid on time, does not become a source of dissatisfaction for the consumers. The Commission approves Rs. 103.75 crores for UHBVNL and Rs. 93.02 crores for DHBVNL as interest on consumer security deposit for the FY 2017-18, as proposed by them.

3.2.21 Interest on Working Capital

Working capital borrowings have been calculated in accordance with the methodology prescribed in the MYT regulations. However, the rate of interest has been derived from the filings of the licensee; being the average rate of interest on working capital borrowings for the FY 2017-18 which is lower on account of conversion of

borrowings into bonds under the UDAY scheme. The average rate of interest as per filings is 8.80% for UHBVNL and 8.74 % for DHBVNL. The Commission, in accordance with the MYT Regulations, approves the interest on working capital borrowings for the FY 2017-18 as under:-

Approved Interest on Working Capital Loan of UHBVNL

(Rs. in Crore)

Interest on working capital	FY 2017-18
O&M expenses for 1 month	102.19
Maintenance spares 1% of opening GFA	70.65
2 months receivables	1835.65
Uncollected revenue	110.14
Total	2118.62
Less	
ACD	838.04
Net working capital	1280.59
Interest Rate	8.80%
Interest cost (rounded off)	112.72

Approved Interest on Working Capital Loan of DHBVNL

(Rs. Crore)

Interest on working capital	FY 2017-18
O&M expenses for 1 month	113.92
Maintenance spares 1% of opening GFA	79.92
2 months receivables	2308.57
Uncollected revenue	138.51
Total	2640.93
Less	
ACD	1200.26
Net working capital	1440.67
Interest rate	8.74%
Interest cost	125.91

3.2.22 Interest on UDAY Bonds

As per the financial arrangement under UDAY scheme, 75% of the borrowings as on 30.9.2015 were to be taken over by the State Government within 5 years by

conversion into equity and grant. Until such time the arrangement is completed, the interest is to be borne by the Distribution licensees.

The Discoms have proposed to recover all their interest costs from the consumers by way of interest on borrowings for capital expenditure and the balance through interest on working capital borrowings inclusive of UDAY bonds. However, the Commission observes that the interest cost borne by the licensee is recovered from the consumers of the state by way of interest on borrowings for capital expenditure, interest on working capital borrowings; interest on Advanced Consumption Deposit and also some interest is recovered as part of FSA. The interest being recovered as part of FSA has not been accounted for by the licensees while calculating the financial burden of interest as part of the UDAY scheme. The revised approved interest on UDAY borrowings is as under:-

Interest on UDAY borrowings for the FY 2017-18

As per the information provided by the Discoms the interest payable for UDAY bonds for the FY 2017-18 is as under:-

Rs. Crore

Interest to State Govtt. for UDAY Bonds	UHBVNL	DHBVNL	Total
	548	397.22	945.22

The total cost for the FY 2015-16 and FY 2017-18 adds up to Rs. 946.89 Crore. The same shall be met out of OFR available under the UDAY.

3.2.23 Total Expenditure

As per the item wise expenditure approved by the Commission the total expenditure works out to Rs.11211.10 Crore (UHBVNL) and Rs. 14098.89 Crore for (DHBVNL) for the FY 2017-18 as against Rs. 14037.03 Crore proposed by UHBVNL and Rs. 16900.65 Crore proposed by the DHBVNL respectively.

Additionally, the Commission observes that, so far, no RoE has been allowed to the Discoms because of the Equity being eroded due to accumulated losses. The Commission, in view of the UDAY, is of the considered view that in the present Order distribution loss trajectory has been pegged at per that agreed upon in the said scheme as well as not allowed any additional working capital loan and interest thereto on account UDAY. Further, fresh Equity is expected to be infused in the Discoms under

UDAY. Hence, in order ensure financial turnaround of the Discoms in line with the objectives of UDAY, the Commission has considered it appropriate to allow 10% RoE in the FY 2017-18 i.e at the same rate as allowed to HPGCL and HVPNL. Consequently, RoE amounting to Rs. 364.72 Crore for both the Discoms shall be recovered along with the revenue gap in the FY 2017-18.

3.2.24 Non-Tariff Income

Non-tariff income is approved as proposed by the discoms at Rs. 197.25 Crore for UHBVNL and Rs. 247.47 Crore for DHBVNL respectively.

3.2.25 Interest on FRP borrowings

The Distribution licensees have signed tripartite MOU dated 11.03.2016 with the Government of India and Haryana State Government under the Ujjawal Discom Assurance Yojna (UDAY) of the Government of India. As per the MoU, 75% of the borrowings of the Discoms, as on 30.9.2015, are to be taken over by the State Government. The Discoms have not provisioned for any interest on the FRP borrowings as the objective of the UDAY is to ensure that the electricity consumers are not burdened with the interest cost of past borrowings. Accordingly, the Commission has not considered the interest cost on FRP borrowings in the ARR of the two Discoms in the FY 2017-18

3.2.26 ARR of UHBVNL & DHBVNL for the FY 2017-18

In view of the above, the total ARR stands approved at Rs. 11013.85 Crore for UHBVNL as against Rs. 13839.51 Crore proposed by UHBVNL and Rs. 13851.42 crores for DHBVNL as against Rs. 16653.18 Crore proposed by it.

ARR of UHBVNL for the FY 2017-18

Rs. in Crore

S.No.	Particulars	UHBVNL Proposal	HERC Approval
1	Power Purchase Expenses	10959.57	9146.57
1.1	Power purchase cost	9764.60	8377.12
	Intra state transmission charges	512.05	-
1.2	Interstate transmission charges & SLDC Charges	682.92	767.02
1.3	SLDC charges		2.44
2	Operations and Maintenance Expenses	1288.05	1226.33

2.1	Employee Expense	676.35	617.66
2.2	A&G Expense	81.06	81.06
2.3	R&M Expense	130.64	127.62
2.4	Terminal Liability	400.00	400.00
3	Depreciation	339.64	310.17
4	Interest Cost		
4.1	Interest on Consumer Security Deposit	103.75	103.75
4.2	Interest & Finance Charges (term loan)	119.98	119.98
4.3	Interest & Finance Charges (Working capital)	232.13	112.72
4.4	Interest on UDAY Bonds	681.09	
11	Return on Equity Capital	268.19	191.56
A	**Total Expenditure**	**14037.03**	**11211.10**
B	Income/Receipts		
12	Non Tariff Income	197.25	197.25
C	Aggregate Revenue Requirement = (A - B)	13839.51	11013.85

ARR of DHBVNL for the FY 2017-18 (Rs. Crore)

S.No.	Particulars	DHBVNL Proposal	HERC Approval
1	Power Purchase Expenses	14010.18	11925.87
1.1	Power purchase cost	12409.62	11021.51
1.2	Interstate transmission charges	899.22	-
1.3	Intrastate transmission charges & SLDC Charges	701.34	901.50
	SLDC charges		2.86
2	Operations and Maintenance Expenses	1392.76	1367.00
2.1	Employee Expense	815.88	790.12
2.2	A&G Expense	77.72	77.72
2.3	R&M Expense	114.16	114.16
2.4	Terminal Liability	385.00	385.00
3	Depreciation	315.80	288.87
4.1	Interest on Security Deposit	93.02	93.02
4.2	Interest & Finance Charges (term loan)	122.06	122.06
4.3	Interest & Finance Charges (Working capital)	688.92	125.91
4.4	Interest on UDAY Bonds		
	Cost of raising finance	3.00	3.00
11	Return on Equity Capital	242.42	173.16
	Other Debits	32.49	
A	Total Expenditure	16900.65	14098.89
B	Income/Receipts		
12	Non Tariff Income	247.47	247.47
13	Income from FSA		
C	Aggregate Revenue Requirement = (A - B)	16653.18	13851.42

3.2.27 Revenue Requirement for the FY 2017-18

The total ARR of the two Discomss for the FY 2017-18 is as given in the table below. The revenue surplus/ gap for the FY 2017-18 is as per the table below:-

Revenue Gap for FY 2017-18 at Current Tariff (Rs. Crores)

Total ARR for FY 2017-18	Revenue gap at current tariff
UHBVNL	11013.85
DHBVNL	13851.42
Total ARR for FY 2017-18	24865.27
Revenue gap for FY 2015-16 (non AP consumers)	1106.25
Carrying cost on above for 2 years @ 8.8% p.a.	194.70
Total Revenue requirement for FY 2017-18	26166.22
Revenue at current tariff (calculated at calculated at projected consumer category wise sales and consumer category wise average connected load / contract demand for FY 2017-18)	18603.79
Total Sales for FY 2017-18 (MU)	36573.41
COS at LT level (not considering the impact of UDAY bonds)	7.25
AP Sales for the FY 2017-18 (MU)	9193
Subsidy for AP supply at LT COS (less revenue from AP tariff)	6550.86
Total revenue including RE Subsidy	25154.65
Revenue Gap for FY 2017-18 at current tariff	1011.57

3.3 Capital Expenditure

3.3.1 True-up of Capital Expenditure for the FY 2015-16

a) UHBVNL

The Commission, in its Order on Annual Performance Review petition of UHBVNL for the FY 2015-16, had approved a capital expenditure of Rs. 457.34 Crore. However, the licensee in their filing of Annual Performance Review petition for the FY 2016-17 (including truing up for FY 2015-16) as per MYT Regulations, intimated that the actual expenditure incurred was Rs. 368.52 Crore and has prayed that the Commission may approve the same. As UHBVNL had not provided the complete details of the same, hence, the Commission directed the licensee to submit the work wise details of actual capital expenditure incurred by them. Accordingly the licensee submitted work wise details. A perusal of the same revealed that the actual expenditure incurred by UHBVNL was Rs. 368.52 Crore. The details of the Capex approved by the Commission for the FY 2015-16 vis-a-vis actual Capex incurred by UHBVNL is as under:-

Sr. No.	Name of Scheme/Work	Investment approved by HERC for FY 2015-16	Actual expenditure incurred by the UHBVNL FY 2015-16	
1	2	6		
1	Creation of new 33 kV sub-stations	226.14	62.11	181.13
2	Augmentation of existing 33 kV sub-stations		51.39	
3	Erection of new 33 kV lines		10.04	
4	Erection of new 11 kV lines		7.81	
5	Bifurcation/Trifurcation of overloaded 11 kV feeders		49.78	
6	Release of tube well connections	0.00	9.00	
7	Installation of meters on 33 kV Incomers for energy auditing	0.00	2.85	
8	Material required for release of non-AP connections, replacement of old assets and system improvement.	176.00	143.42	
9	Shifting of meters in pillar boxes	0.00		
10	Procurement of single phase meters for replacement of defective meters and release of new connections.	0.00		
11	Procurement of three phase meters for replacement of defective meters and release of new connections.	0.00		
12	Procurement of power T/F and allied equipment such as 33 kV CTs (current transformers), 33 kV PTs (potential transformers), 33 kV and 11 kV VCBs (Vaccum Circuit Breakers), 33 kV Control and Relay Panels etc.	0.00		
13	R-APDRP (Part-A)	47.00	19.18	
14	R-APDRP (Part-B)	0.00	0	
15	Pilot Project (Smart Grid in Panipat)	0.00	0	
16	Construction of UHBVNL Office Building at Panchkula.	0.00	0	
17	Civil Works	8.20	11.65	
18	Annual maintenance contract of Automatic Power Factor Correctors.	0.00	0.00	
19	Installation of LT Capacitors on LT side of distribution transformers.	0.00	0.00	
20	Revamping of existing M&T (Meter Testing) labs at Kaithal, Yamunanagar, Karnal, Dhulkote & Rohtak.	0.00	0.00	
21	Maintenance free earthing using 'Ground Enhancing Material' for Distribution Transformers, Meter Pillar Boxes and H-pole etc.	0.00	0.00	
22	AMR on large NDS & LT consumers on Loads above 10 kW	0.00	0.00	
23	Augmentation of existing 33 kV lines	0.00	1.27	
	Total	**457.34**	**368.52**	

On perusal of the Capex details indicated above that the actual capital expenditure for FY 2015-16 is 75% of the revised capital investment approved, there exists wide unexplained variations in item wise expenditure approved by the Commission and that actually incurred by the licensee. For work mentioned at Sr. No. 17 i.e. Civil Works, the investment approved was 8.2 Crore, but the licensee has

incurred an expenditure of Rs. 11.65 Crore. For works at Sr. No. 13 RAPDRP Part-A the investment was approved of Rs. 47 Crore, however, the expenditure is Rs. 19.18 Crore only. Such deviations reveals lack of proper planning and adhocism on the part of the licensee making the cost benefit analysis redundant as well as making any comparison of the Capex allowed and actual incurred futile. Further, the licensee also undertook some unapproved works i.e. at Sr. No. 6, 7 & 23 without the prior approval of the Commission.

Regulation 9.9 of the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012 specifies as under:-

> *"In case the capital expenditure is required due to Force Majeure events for works which have not been approved in the capital investment plan or for works that may have to be taken up to implement new schemes approved by the State/Central Govt., the generating company or the licensee shall submit an application containing all relevant information along with reasons justifying emergency nature of the proposed work seeking approval by the Commission. In the case of works or schemes, other than those required on account of Force Majeure events, the Commission shall consider to give approval only in those cases where the works/schemes are wholly/substantially financed by the State/Central Government or, in view of the Commission, shall benefit a large mass of consumers of the State. The generating company or the licensee may take up the work prior to the approval of the Commission only in case the delay in approval will cause undue loss and such emergency nature of the scheme has been certified by the Board of the Directors and intimated to the Commission".*

However, the licensee did not obtain any prior approval of the Commission and proceeded to incur expenditure on this unapproved work.

Further, as per Regulation 8.3 (b) of the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012, capital expenditure is a controllable item. As such the

licensee should have exercised proper control over the item wise capital expenditure approved by the Commission.

Regulation 9.10 of the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012 further specifies as under:-

> *"In case the capital expenditure incurred for approved schemes exceeds the amount as approved in the capital expenditure plan, the generating company or the transmission or the distribution licensee, as the case may be, shall file an application with the Commission at the end of control period for truing up the expenditure incurred over and above the approved amount. After prudence check, the Commission shall pass an appropriate order on case to case basis. The True-up application shall contain all the requisite information and supporting documents".*

Provided that any additional capital expenditure incurred on account of time over run and / or on unapproved schemes not covered under Regulation 9.9 or unapproved changes in scope of approved schemes shall not be allowed by the Commission unless the generating company or the licensee, as the case may be, is able to give adequate justification for the same". **The licensee is directed to proceed accordingly**.

b) DHBVNL

The Commission in its order on Annual Performance Review petition of the licensee for the FY 2015-16, approved a revised capital expenditure plan of Rs. 614.35 Crore. However, the licensee in their filing of Annual Performance Review petition for the FY 2016-17 (including truing up for FY 2015-16) as per MYT mechanism intimated that the actual expenditure incurred was Rs. 588.15 Crore and requested the Commission to approve the same. The work wise detail is as under:-

(Expenditure in Crore)

Sr. No.	Name of Scheme/work	Investment approved by HERC for FY 2015-16	Actual expenditure for FY 2015-16
1	2	3	4
	AT&C loss reduction plan		

Sr. No.	Name of Scheme/work	Investment approved by HERC for FY 2015-16	Actual expenditure for FY 2015-16
1	Procurement of single phase meters for replacement of defective meters and release of new connections.	27.00	25.06
2	Procurement of three phase meters for replacement of defective meters and release of new connections.	5.00	4.82
3	LT Connectivity of already executed HVDS works.	17.00	3.23
	Load Growth schemes		
4	Creation of new 33 kV sub-stations	40.00	105.4
5	Augmentation of existing 33 kV sub-stations	24.00	
6	Erection of new 33 kV lines	15.00	
7	Erection of new 11 kV lines	9.00	
8	Augmentation of existing 33 kV lines	13.00	
9	Bifurcation of 11 kV feeders (Work of bifurcation of feeders, augmentation of ACSR)	38.00	52.49
10	Material required for release of Non-AP connections & replacement of old assets	175.00	198.75
11	Release of Tube well connection on turnkey basis	100.00	72.95
12	Procurement of power transformers and allied equipment such as 33 kV CTs, 33 kV PTs, 33 kV and 11 kV VCBs, 33 kV Control and Relay Panels etc.	17.00	16.07
13	Release of BPL connections under RGGVY schemes	0.00	0.00
14	Mahatma Gandhi Gramin Basti Yojna	2.00	3.29
	R-APDRP schemes		
15	Implementation of R-APDRP (Part-A)	48.00	15.23
16	Implementation of R-APDRP (Part-B)	0.00	0.00
17	Relocation of energy meters of DS & NDS consumers outside their premises in Meter Pillar boxes.	27.35	36.11
18	Civil Works	5.00	4.61
	System Strengthening Works under IBRD loan and IBRD equity		
19	Under IBRD Loan	40.00	35.34
20	Under IBRD Equity	10.00	8.4
	Other works		
21	Revamping of existing Meter Testing labs. at Dadri, Sirsa, Hisar, Faridabad & Gurgaon	0.00	0.00
22	Maintenance free earthling using 'Ground Enhancing Material' for Distribution Transformers, Meter Pillar Boxes and H-pole etc.	2.00	0.19
23	Providing RF Meters.	0.00	0.00
24	AMR on large NDS & LT consumers having load about 10 kW (IBRD funded work).	0.00	0.00

Sr. No.	Name of Scheme/work	Investment approved by HERC for FY 2015-16	Actual expenditure for FY 2015-16
25	Other works for system improvement – procurement and software	0.00	6.21
	Total	**614.35**	**588.15**

The actual expenditure for FY 2015-16 of Rs 588.15 Crore against the approved expenditure of Rs. 614.35 Crore. A perusal of the Capex detail indicate that the licensee has not submitted the detail of work wise expenditure for the works mentioned at Sr. No. 4 to 8, the expenditure has been clubbed which defeat the very purposes of item wise Capex approved for specific purpose and benefit there to. Further there exist wide unexplained variations in item wise expenditure approved by the Commission and that actually incurred by the licensee.

The above details indicate that the licensee under took some unapproved works. Such as works for system improvement as mentioned at Sr. No. 25 above. The amount spent on this work is Rs 6.21 Crore. Regulation 9.9 of the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012 specifies as under:-

"In case the capital expenditure is required due to Force Majeure events for works which have not been approved in the capital investment plan or for works that may have to be taken up to implement new schemes approved by the State/Central Govt., the generating company or the licensee shall submit an application containing all relevant information along with reasons justifying emergency nature of the proposed work seeking approval by the Commission. In the case of works or schemes, other than those required on account of Force Majeure events, the Commission shall consider to give approval only in those cases where the works/schemes are wholly/substantially financed by the State/Central Government or, in view of the Commission, shall benefit a large mass of consumers of the State. The generating company or the licensee may take up the work prior to the approval of the Commission only in case the delay in approval will cause undue loss and such emergency nature of the scheme has been certified by the Board of the Directors and intimated to the Commission".

However, the licensee did not obtain any prior approval of the Commission and proceeded to incur expenditure on this unapproved work.

Capital expenditure details reveals that the licensee on schemes mentioned at Sr. No. 9, 10, 14 and 17 has incurred expenditure higher than the capital expenditure approved by the Commission. Licensee has not specified any reason for these deviations.

The Commission reiterates that such deviations defeat the very purpose of item wise expenditure approved and the objective of providing reliable and quality power to the consumers. Such a scenario further reveals lack of proper planning and adhocism on the part of the licensee thereby rendering Cost Benefit analysis redundant.

Further, as per Regulation 8.3 (b) of the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012, capital expenditure is a controllable item. As such the licensee should have exercised proper control over the item wise Capital Expenditure approved by the Commission.

Regulation 9.10 of the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012 further specifies as under:-

> *"In case the capital expenditure incurred for approved schemes exceeds the amount as approved in the capital expenditure plan, the generating company or the transmission or the distribution licensee, as the case may be, shall file an application with the Commission at the end of control period for truing up the expenditure incurred over and above the approved amount. After prudence check, the Commission shall pass an appropriate order on case to case basis. The True-up application shall contain all the requisite information and supporting documents".*

Provided that any additional capital expenditure incurred on account of time over run and / or on unapproved schemes not covered under regulation 9.9 or unapproved changes in scope of approved schemes shall not be allowed by the Commission unless

the generating company or the licensee, as the case may be, is able to give adequate justification for the same". **The licensee is directed to proceed accordingly.**

3.3.2 Review of Capital Investment Plan for FY 2016-17

Regulation 9.7 of the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012, specifies that in the normal course, the Commission shall not revisit the approved capital investment plan during the control period. However, during the mid-year performance review and True-up, the Commission shall monitor the year wise progress of the actual capital expenditure incurred by the generating company or the licensee vis-à-vis the approved capital expenditure and in case of significant difference between the actual expenditure vis-a-vis the approved expenditure, the Commission may True-up the capital expenditure, subject to prudence check, as a part of annual True-up exercise on or without an application to this effect by the generation company/licensee. The generating company and the licensee shall submit the scheme-wise actual capital expenditure incurred along with the mid-year performance review and True-up filing.

Accordingly, both the distribution licensees, through filing of their Annual Performance Review petitions for FY 2016-17 and subsequent submissions, submitted revised capital investment plan for FY 2016-17. After examining these, the Commission allows following revised capital investment plans.

a) UHBVNL

The licensee through their Annual Performance Review Petition indicated that the likely expenditure for FY 2016-17 would be to the tune of Rs. 316.47 Crore against the approved expenditure of Rs. 1055.97 Crore. The licensee has intimated that during first six months of the year, the actual expenditure has been to the tune of Rs. 259.70 Crore and as such the likely expenditure for FY 2016-17 would be Rs. 316.47 Crore only. The work wise details provided are as below:-

(Expenditure in Crore)

S. No.	Name of the Scheme	Approval granted by HERC in ARR order for FY 2016-17	Actual Progress during April 2016 to September 2016	Likely Progress during October 2016 to March 2017	Total Likely Progress during FY 2016-17
1	2	3	4	5	6
1	Creation of new 33 kV sub-stations	60.00	32.32	7.14	39.47
2	Augmentation of existing 33 kV sub-stations	56.55	24.03	2.95	26.98
3	Creation of new 33 kV lines	24.00	89.68	3.60	12.57
4	Augmentation of existing 33 kV lines	26.45	44.59	0.00	4.46
5	Creation of new 11 kV lines	14.00	67.57	4.00	10.75
6	Bifurcation/Trifurcation of overloaded 11 kV feeders	13.76	9.64	0.00	9.64
7	Shifting of 33 kV dangerous Lines (CM Announcement)	20.00	0.00	0.00	0.00
8	Shifting of 11 kV dangerous Lines (CM Announcement)	20.00	0.00	0.00	0.00
9	Works to be carried out under DDUGJY scheme for system strengthening including SAGY	15.00	0.00	0.00	0.00
10	Works to be carried out under IPDS scheme for system strengthening	15.00	0.00	0.00	0.00
11	Mahatma Gandhi Gramin Basti Yojana (MGGBY)	80.00	4.50	0.80	5.30
12	Pilot Project (Smart Grid in Panipat) NEDO funded Nigam's expenditure 3 Cr. (MoP)	40.00	0	0.01	0.01
13	R-APDRP (Part-A) including DT Metering	0	1.66	1.67	3.33
14	AMR of DS and NDS consumers between 20 KW to 50 KW	18.58	0.00	0.00	0.00
15	Compulsory Feeder and Distribution Transformer metering	200.00	0.00	0.00	0.00
16	Consumer indexing and GIS mapping	58.04	0.00	0.00	0.00
17	Construction of UHBVNL Office Building at Panchkula	29.23	0.00	0.00	0.00
18	Civil Works	34.00	3.79	6.60	10.39
19	Release of tube well connections (Nos.) (To be released on HT connections)	46.28	0.00	0.00	0.00
20	Procurement of power T/F and allied equipments such as 33 kV CTS (current transformers), 33 kV PTs (potential transformers), 33 kV and 11 kV VCBs (Vacuum Circuit Breakers), 33 kV Control and Relay Panels etc.	120.00	163.55	30.00	193.55
21	Material required for release of non-AP connections, replacement of old assets and system improvement	55.00			

S. No.	Name of the Scheme	Approval granted by HERC in ARR order for FY 2016-17	Actual Progress during April 2016 to September 2016	Likely Progress during October 2016 to March 2017	Total Likely Progress during FY 2016-17
	Budget				
22	Procurement of single phase meters for replacement of defective meters and release of new connections. (Nos.)	2.07			
23	Procurement of three phase meters for replacement of defective meters and release of new connections. (Nos.)	10.71			
24	Relocation of energy meters of DS & NDS consumers outside their premises.(Procurement of MCBs and 2cx10 mm^2 LT PVC armoured/ un-armoured cables	3.00			
25	Procurement of LT AB Cables for loss reduction plan	14.30			
26	Re conductoring / augmentation of 11kV lines/ LT lines with 100mm^2 in urban areas and 80/50 mm2 in rural areas in kms (in addition to quantity covered in serial number 16, following quantity is required)	26.00			
27	Setting up of a new testing lab for materials, i.e. cable, conductors, transformer oil, distribution transformers, etc. at Karnal	10.00	0.00	0.00	0.00
28	Revamping of existing M&T (Meter Testing) labs at (Kaithal, Yamunanagar, Karnal, Dhulkote & Rohtak)	34.00	0.00	0.00	0.00
29	Site testing of DS, NDS consumers upto 20 KW in urban area - 49678 Nos	10.00	0.00	0.00	0.00
Total		**1055.97**	**259.70**	**56.77**	**316.47**

From the above figures it is concluded that the licensee has not been able to start ten works during the year and the expenditure on these works would be nil. This is very dismal performance. What is the use of asking for the capital expenditure when the licensee cannot take up the works as planned? Further in respect of the works mentioned at Sr. No. 1 to 5, the likely expenditure would be much less than the approved expenditure. The details of work wise expenditure have not been provided in respect of the work mentioned at Sr. No. 20 to 26. As already stated, such a scenario

reveals lack of proper planning and adhocism on the part of the licensee making the cost benefit analysis redundant.

The licensee had not given any reasons/justification for only 30% expenditure of the approved expenditure for FY 2016-17. It is a matter of concern that the licensee has not been able to utilize the capital expenditure even when the focus is preliminary on system strengthening and loss reduction under sought UDAY scheme. Such deviations defeat the very purpose of item wise expenditure approved and the objective of providing reliable and quality power to the consumers. This also reveals lack of proper planning and adhocism on the part of the licensee making the cost benefit analysis redundant. As such the licensee should have exercised the proper control over the item wise expenditure approved by the Commission.

The licensee has stated that an expenditure Rs. 5.30 Crore would be incurred on Mahatma Gandhi Gramin Basti Yojna (MGGBY) during the FY 2016-17. The licensee states that MGGBY is a flagship programme funded by of Govt. of Haryana. **As already stated in Commission's order dated 07th May, 2015 on APR petition of the licensee for FY 2014-15, for any Capex undertaken by the licensee without the approval of the Commission and on the direction of the State Govt., the funding of the same has to come from grant/subvention from the State Govt. and cannot be allowed through ARR/Tariff.** As such, the amount of Rs. 5.30 Crore included by the licensee towards the expenditure on this scheme in their revised capital investment plan is allowed subject to the condition that funding for the same has to come from the State Government.

Based upon the above details provided by the licensee, the Commission allows revised capital investment plan of Rs. 316.47 Crore to the licensee for FY 2016-17.

b) DHBVNL

The licensee through their Annual Performance Review Petition indicated that the actual expenditure for FY 2016-17 would be to the tune of Rs. 825 Crore against Rs. 1200 Crore approved by the Commission. The licensee has not intimated that the actual expenditure for the first six months of the FY 2016-17, and the likely expenditure for last six month of FY 2016-17. However, during discussions with the licensee's officers on 22.03.2017 it was intimated that the likely expenditure for FY 2016-17 would be Rs. 637.94 Crore only.

The work wise details provided are as below: -

(Expenditure in Rs. Crore)

Sr. No.	Name of Scheme/work	Investment approved by HERC FY 2016-17	Actual expenditure during April, 2016 to September, 2016.	Likely expenditure during October, 2016 to March, 2017	Total likely expenditure during FY 2016-17
	AT&C loss reduction plan				
1	Procurement of single phase meters for replacement of defective meters and release of new connections.	88.47	14.15	20.85	35.00
2	Procurement of three phase meters for replacement of defective meters and release of new connections.	46.00	2.84	3.16	6.00
3	LT Connectivity of already executed HVDS works.	8.00	0.54	1.00	1.54
4	Power factor improvement (providing automatic power correctors)	15.00	0.00	3.69	3.69
	Load Growth schemes				
5	Creation of new 33 kV sub-stations	110.00	96.36	67.64	164.00
6	Augmentation of existing 33 kV sub-stations	30.00			
7	Erection of new 33 kV lines	15.00			
8	Erection of new 11 kV lines	10.00			
9	Augmentation of existing 33 kV lines	15.00			
10	Bifurcation of 11 kV feeders (Work of bifurcation of feeders, augmentation of ACSR)	74.00	18.83	5.00	27.83
11	Material required for release of Non-AP connections & replacement of old assets	200.00	64.97	85.70	150.67
12	Release of Tube well connection on turnkey basis	100.00	65.73	35.00	100.73
13	Procurement of power transformers and allied equipment such as 33 kV CTs, 33 kV PTs, 33 kV and 11 kV VCBs, 33 kV Control and Relay Panels etc.	25.00	6.07	11.93	18.00
14	Release of BPL connections under RGGVY schemes	13.00	0.00	1.00	1.00
	R-APDRP schemes				
15	Implementation of R-APDRP (Part-A)	60.00	4.19	6.00	10.19
16	Implementation of R-APDRP (Part-B)	45.00	0.00	0.00	0.00
17	Relocation of energy meters of DS & NDS consumers outside their premises in Meter Pillar boxes.	50.00	7.98	4.54	12.52
18	Civil Works	12.00	2.23	1.77	4.00

Sr. No.	Name of Scheme/work	Investment approved by HERC FY 2016-17	Actual expenditure during April, 2016 to September, 2016.	Likely expenditure during October, 2016 to March, 2017	Total likely expenditure during FY 2016-17
	System Strengthening Works under IBRD loan and IBRD equity				
19	Under IBRD Loan	90.00	22.00	30.14	52.14
20	Under IBRD Equity	22.50	5.33	7.53	12.86
	Other works				
21	Revamping of existing Meter Testing labs. at Dadri, Sirsa, Hisar, Faridabad & Gurgaon	1.00	0.00	0.00	0.00
22	Maintenance free earthling using 'Ground Enhancing Material' for Distribution Transformers, Meter Pillar Boxes and H-pole etc.	7.00	0.02	0.20	0.22
23	Installation of meters on 33 KV incomers at sub-station for energy auditing	2.00	0.00	0.00	0.00
24	AMI on large NDS & LT consumers having load about 10 kW (IBRD funded work).	34.00	0.00	0.00	0.00
	Total	**1072.97**			
25	Setting up of a new testing lab for materials i.e. cable, conductors, transformer oil, distribution transformers etc. at Hisar	2.07	0.00	0.00	0.00
26	Strengthening of 11 kV & LT Network of Bhiwani & Jind Towns (Total project Cost Rs. 75 Crore. To be funded form world bank	45.00	0.00	0.00	0.00
27	Shifting of 33 kV lines passing over authorized/un-authorized colonies (CM Haryana announcement)	26.16	0.00	2.00	2.00
	Works under Ujjwal Discom Assurance Yojana				
28	Providing of metering arrangements on feeders (4535 numbers).	4.53	0.00	0.00	0.00
29	Providing of AMR meters on DTs in left out urban areas (Approx. 5009 DTs) i.e areas not covered RAPDRP Part-A scheme.	4.00	0.00	0.00	0.00
30	Providing of boundary meters for Villages (7296 meters in 3648 villages).	38.00	0.00	0.02	0.02
31	Providing of meters on DTs in rural areas (to be provided for reduction of AT&C losses to 30%.	10.00	0.00	0.00	0.00
32	Engagement of IT firm for Roll out of R-APDRP Application to Non R-APDRP Areas. (Procurement and installation of IT hardware at end locations of Sub-Divisions, Providing MPLS connectivity at end location).	17.00	0.00	0.00	0.00
33	Consumer indexing and GIS mapping of losses	19.00	0.00	0.00	0.00
34	Replacement of bare conductor with LT-AB cable in theft prone areas	84.76	7.30	22.77	30.07

Sr. No.	Name of Scheme/work	Investment approved by HERC FY 2016-17	Actual expenditure during April, 2016 to September, 2016.	Likely expenditure during October, 2016 to March, 2017	Total likely expenditure during FY 2016-17
35	Replacement of defective meters and Relocation of energy meters of DS&NDS consumers outside their premises in MCBs (Procurement of 1X1 & 4X1 MCBs for 1 Ph Meters, 1X1 MCBs for 3 Ph Meters, 2cx10 mm2 and 4cx16 mm2 LT PVC armoured/un-armoured cables and meters).	85.25	3.91	4.50	8.41
36	Other works for system improvement – procurement of IT equipment and software	0.00	0.00	1.05	1.05
	Total capital expenditure	**1408.74**	**322.45**	**315.49**	**637.94**
	Approved capital expenditure for FY 2016-17	**1200**			**637.94**

The above details indicate that there are wide unexplained variations in item wise expenditure approved by the Commission and that actually incurred by the licensee. Moreover, the licensee has not been able to utilize the capital expenditure sought for UDAY and loss reduction related activities/schemes, which is a matter of concern. The licensee has cited the reasons of delay in finalization of tenders, delay in award of works for incurring less capital expenditure than approved by the Commission. The reason for under achievement cited by the licensee does not seem to be convincing and reflects adversely on the functioning of the licensee. Such deviations defeat the very purpose of item wise expenditure approved and the objective of providing reliable and quality power to the consumers. This also reveals lack of proper planning and adhocism on the part of the licensee making the cost benefit analysis redundant. As such the licensee should have exercised the proper control over the item wise expenditure approved by the Commission.

The Commission considered and allows the capital expenditure of Rs. 2.0 Crore incurred on the works for shifting of 33 kV dangerous lines over the buildings and other areas in view of the directions of State Government under Section 108 of Electricity Act, 2003.

Subject to the above, the Commission allows revised capital investment plan of Rs. 637. 94 Crore for the FY 2016-17.

3.3.3 Capital investment plan for FY 2017-18.

Control period under the MYT Regulations has been increased further for one year i.e. upto 2017-18. Accordingly the licensees have submitted their capital investment plan for FY 2017-18. The licensees through their annual performance review petition for FY 2016-17, projected capital investment plan for FY 2017-18, however, revised the same in their subsequent submissions. The details are as under:-

a) UHBVNL

The licensee in his preliminary submission proposed a capital investment plan of Rs. 753.8 Crore for FY 2017-18, however, later revised to Rs. 963.41 Crore vide its subsequent submissions to APR/ARR. The details of capital investment plan proposed by the UHBVNL for FY 2017-18 are as under:-

Proposed capital Investment Plan for FY 2017-18 (Expenditure in Crore)

Sr. No.	Name of scheme / work	Proposed expenditure for FY 2017-18.
1	Creation of new 33 kV sub-stations (Nos. 25)	57.50
2	Augmentation of existing 33 kV sub-stations (Nos. 66)	65.00
3	Creation of new 33 kV lines	19.75
4	Augmentation of existing 33 kV lines	6.45
5	Creation of new 11 kV lines	8.00
6	Shifting of 33 kV dangerous Lines (CM Announcement)	2.00
7	Shifting of 11 kV dangerous Lines (CM Announcement)	10.00
8	Bifurcation/Trifurcation of overloaded 11 kV feeders	25.00
9	Release of tube well connections	30.00
	(To be released on HT connections)	
10	Construction of UHBVNL Office Building at Panchkula	10.00
11	Civil Works (Sub-division office Munak, Amin, Pundri, Gharaunda, Division office Naraingarh & Circle Office Kurukshetra, Panipat, Sonepat, .2nd Office Building at Rohtak, Renovation of M&T Lab & TRW/Store, Cash Collection Centers, Boundary Wall.)	10.00
12	Works to be carried out under DDUGJY scheme for system strengthening including SAGY	35.00
	New 33 kv line - 62 kms	
	New 11 kv line - 374.06 kms	
	Augmentation of 11kV Lines - 119.32 kms	
	New DTs - 3372	
	Augmentation of DTs - 324	
	Augmentation of LT Lines - 39.44 kms	
	Provision of LT AB Cables - 984.44 kms	

Sr. No.	Name of scheme / work	Proposed expenditure for FY 2017-18.
	Replacement/relocation of Meter - 17243 Nos.	
13	Works to be carried out under IPDS scheme for system strengthening	25.00
	New 11kv line - 69.90 kms	
	Augmentation of 11kV Lines - 188.75 kms. New DTs - 281	
	Augmentation of DTs - 278	
	New LT Feeder - 271.3 kms	
	Augmentation of LT Lines - 383.6 kms	
	Replacement/relocation of Meter - 36415 Nos.	
14	Mahatma Gandhi Gramin Basti Yojana (MGGBY)	5.00
15	Procurement of power T/F and allied equipments such as 33 kV CTS (current transformers), 33 kV PTs (potential transformers), 33 kV and 11 kV VCBs (Vacuum Circuit Breakers), 33 kV Control and Relay Panels etc.	16.72
16	Material required for release of non-AP connections, replacement of old assets and system improvement Budget	200.00
17	Procurement of single phase meters for replacement of defective meters and release of new connections. (**Loss Reduction Activities)**	34.80
18	Procurement of three phase meters for replacement of defective meters and release of new connections. (**Loss Reduction Activities)**	17.53
19	LRP works to be carried out under MGJG scheme and urban feeder sanitisation Scheme on Turn Key Basis	350.00
20	Rural Feeder Monitoring System (AMR of new Rural Feeders) Being implemented by RECPDCL	0.66
21	Pilot Project (Smart Grid in Panipat) NEDO funded Nigam's expenditure 3 Cr. (MoP) (**Loss Reduction Activities)**	2.00
22	R-APDRP (Part-A) including DT Metering	31.00
23	Engagement of IT firm for Roll out of R-APDRP Application to Non R-APDRP Areas, Procurement and installation of IT hardware at end locations of Sub-Divisions, Providing MPLS connectivity at end location	2.00
	Total	**963.41**

b) DHBVNL

The licensee in his preliminary submission proposed a capital investment plan of Rs. 1200 Crore for FY 2017-18, however, later revised to Rs.1260 Crore vide its subsequent submissions to APR/ARR. The details of capital investment plan proposed by the DHBVNL for FY 2017-18 are as under:-

Proposed capital Investment Plan for FY 2017-18

(Expenditure in Crore)

Sr. No.	Name of work	Proposed expenditure for FY 2017-18.
1	**AT&C loss reduction plan**	
a	Procurement of single phase meters for replacement of defective meters and release of new connections.	34.78
b	Procurement of three phase meters for replacement of defective meters and release of new connections.	16.80
c	LT Connectivity of already executed HVDS works.	3.62
d	Power Factor Improvement (Providing automatic power factor correctors)	6.40
2	**Load Growth schemes**	
a	Creation of new 33 kV sub-stations alongwith associated 33 kV & 11 kV lines	82.03
b	Augmentation of existing 33 kV sub-stations	15.00
c	Augmentation of existing 33 kV lines	6.00
d	Bifurcation of 11 kV feeders (Work of bifurcation of feeders, augmentation of ACSR) and segregation of Rural Urban load	105.19
e	Material required for release of Non-AP connections & replacement of old assets	116.16
f	Release of Tube well connection on turnkey basis and segregation of AP load from Rural Urban feeders.	80.00
g	Procurement of power transformers and allied equipment such as 33 kV CTs, 33 kV PTs, 33 kV and 11 kV VCBs, 33 kV Control and Relay Panels etc.	20.00
h	Release of BPL connections under RGGVY schemes	9.60
3	**R-APDRP schemes**	
a	Implementation of R-APDRP (Part-A) including SCADA	8.00
b	Implementation of SCADA under R-APDRP (Part-B) in Faridabad town	0.00
4	**System Strengthening Works under IBRD loan and IBRD equity**	**0.00**
	Under IBRD Loan	0.00
	Under IBRD Equity	0.00
5	**Other works**	**0.00**
a	Setting up of a new testing lab for materials i.e. cable, conductors, transformer oil, distribution transformers etc. at Hisar.	6.11
b	Revamping of existing Meter Testing labs. at Dadri, Sirsa, Hisar, Faridabad & Gurgaon	1.42
c	Maintenance free earthling using 'Ground Enhancing Material' for Distribution Transformers, Meter Pillar Boxes and H-pole etc.	2.65
d	Installation of meters on 33 kV Incomers at sub-stations for energy auditing.	3.20
e	Relocation of energy meters of DS & NDS consumers outside their premises in Meter Pillar boxes.	6.84
f	Civil Works	16.08
g	Shifing of HT line (33 kV), passing over authorized/un-authorized colonies under jurisdiction of DHBVN.	13.20

Sr. No.	Name of work	Proposed expenditure for FY 2017-18.
h	Improvement works under loss reduction plan , replacement of iron pole and providing of PAT	26.93
i	Mahara gaon jagmag gaon scheme for rural area and feeder sanitization for Urban area	300.00
j	Other works for system improvement - Procurement of IT Equipment & Softwares	8.00
k	Smart City Gurgaon	200.00
l	Door Step Services for Ease of Doing Buisness under DHBVN jurisdiction	10.00
m	Implementation of SMART GRAM- an initiative of HE President of India	10.00
6	**CAPEX under UDAY (Ujjwal DISCOM Assurance Yojana)**	
a	Compulsory Feeder and Distribution Transformer metering Feeder meters have been provided on 100% feeders. AMR is already implemented on 1078 feeders. AMR on 4535 Number feeders is to be provided	1.60
b	DT meters with AMR have been provided on DTs in areas under RAPDRP Part - A for 17535 meters. DT Meters for left out urban areas is to be provided approx. 2000 DTs	8.80
c	Boundary meters for Villages in Rural Areas (3648 number of villages i.e. 7296 meters)	30.40
d	DT Meters for rural areas is to be provided for reduction of AT&C losses to 30%	16.00
e	Engagement of IT firm for Roll out of R-APDRP Application to Non R-APDRP Areas, Procurement and installation of IT hardware at end locations of Sub-Divisions, Providing MPLS connectivity at end location	24.00
f	Consumer indexing and GIS mapping of losses	
g	# Upgrade or change of transformers / meters etc. (The activities under this scheme have already been covered under Sr No 1a, 1 b, 2g & 3a)	
h	Replacement of bare conductor with LT- AB cable/LT XLPE armored cable in theft prone areas	35.20
i	Replacement of defective meters and Relocation of energy meters of DS & NDS consumers outside their premises in MCB(Procurement of 1X1 & 4X1 MCBs for 1 Ph Meters, 1X1 MCBs for 3Ph Meters, 2cx10 mm2 and 4cx16 mm2 LT PVC armoured/ un-armoured cables and meters).	24.00
j	Smart metering of consumers consuming above 200 units AMI Project for smart meters already under implementation in Gurgaon and Faridabad City for about 100000 consumers and is expected to be completed by December 2017 (under World Bank Project). Further Roll out will be based on the results. Expected Cost for the project is around Rs 105 Crore)	12.00
	Total	**1260.00**

Licensees have not submitted details regarding financial arrangements, work orders, NITs/ tenders and activities undertaken to incur the huge capital expenditure demanded for FY 2017-18.

In respect of licensee UHBVNL, who have proposed a capital expenditure plan of Rs. 963.41 Crore, the Commission feels that it is very much on higher side looking at their spending capacity in the past. As UHBVNL had only able to incur an expenditure of RS. 488.13 Crore and Rs. 368.52 Crore during FY 2014-15 and FY 2015-16 respectively and expected to incur an expenditure Rs. 316.47 Crore only during FY 2016-17. The Commission, however, recognizes that huge capital expenditure shall be required in order to meet the targets envisaged under UDAY scheme and to strengthen the distribution system. The Commission also observes that expenditure to tune of 350 Crore alone (at sr. no. 19) has been proposed for MGJG scheme and considers it on higher side. Regarding capital expenditure proposed for works shifting of 11 kV and 33 kV dangerous lines over the buildings and other areas, the licensees should take up the matter with the State Government to provide necessary funds. **As such, in respect of UHBVNL, the Commission approves a overall capital expenditure plan of Rs. 800 Crore only for FY 2017-18.**

In case of DHBVNL the actual capital expenditure for FY 2015-16 and revised capital expenditure for FY 2016-17 is in the tune of Rs. 588.15 Crore and Rs. 637.94 Crore respectively. For the FY 2017-18, DHBVNL has posed a capital expenditure of Rs. 1260 Crore which includes Rs. 200 Cores towards the first phase of Smart Grid of Gurgaon. The total outlay on the Smart Grid of Gurgaon Project has been proposed as 1382.36 Crore, out of which 273.20 Crore is admissible under PSDF grant. The expenditure of Rs. 300 Crore for MGJG scheme and Rs. 105.19 Crore for bifurcation/trifurcation of feeders seems to be on the higher side. The Commission, however, recognizes that huge capital expenditure shall be required in order to meet the targets envisaged under UDAY scheme and to strengthen the distribution system. **Considering the above, the Commission approves the overall capital expenditure plan of Rs. 1100 Crore only for FY 2017-18.**

Discoms are directed to revise their capital expenditure plan accordingly and submit the scheme wise details of proposed expenditure to the Commission within one month from the data of issue of this Order.

Both the licensees are further directed that they shall regulate their capital expenditure plans for FY 2016-17 and FY 2017-18 as per Regulations 9.7 to 9.12 of the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012.

3.4 Review of Technical Parameters

The Commission has reviewed the performance of the distribution system of the two distribution licensees i.e. UHBVNL and DHBVNL, based upon the details made available for FY 2015-16 & FY 2016-17 and has also examined the projected performance based upon filing of their Annual Performance Review petition for FY 2015-16, Revised Annual Revenue Requirement of 2016-17 & proposed Annual Requirement for FY 2017-18 including subsequent submissions thereof as per Multi Year Tariff mechanism. The Commission observes as under:-

3.5 Distribution Losses

The year-wise position of distribution losses as per the information provided by UHBVNL and DHBVNL is presented in the table below:-

Distribution Losses (%)

Year	UHBVNL	DHBVNL
2001 – 2002	31.74	29.33
2002 – 2003	35.02	35.02
2003 – 2004	32.36	33.34
2004 – 2005	30.65	32.72
2005 – 2006	31.04	30.90
2006 – 2007	28.67	29.65
2007 – 2008	28.56	27.54
2008 – 2009	27.02	25.19
2009 – 2010	25.92	26.97
2010 – 2011	33.30	22.95
2011 – 2012	31.20	23.71
2012 – 2013	31.26	22.38
2013 – 2014	32.40	23.66
2014 – 2015	30.58	24.47
2015 – 2016	31.49	24.47
2016 – 2017	30.08	21.99
2017 – 2018 (Projected)	20.85	17.94

The Commission observes that in spite of making huge capital expenditure on loss reduction, system strengthening/up gradation, energy meters, IT interventions etc, the distribution licensees have failed to achieved the distribution loss targets as stated in Commission's Order on earlier ARRs of the two distribution licensees including Order on ARR for control period FY 2014-15 to FY 2016-17. The Commission noted that the distribution losses of Haryana are very high as compared to losses in neighbouring States like Punjab, Himachal Pradesh and Gujarat etc. This reflects adversely on the operations and working of the distribution licensees of Haryana.

In case of UHBVNL, the losses in a span of eleven years i.e. from FY 2005- 06 to FY 2016-17, are almost at the same level and hovering around 30%, which is unacceptable by any standard. In case of DHBVNL, these have reduced only by 7.91% in a span of last eleven years. The Commission observes that the distribution losses reduction is one of the key factors for financial revival of Licensees. The Commission expect from licensees to make all out efforts and to achieve the targets as prescribed by the Commission. The Commission, however, appreciates the efforts being made by DHBVNL to bring down the losses significantly during the FY 2016-17 as compared to FY 2015-16.

The year-wise position of the line losses on 11 kV rural and urban feeders of the licensees, as per the information provided by UHBVNL and DHBVNL, is given in the table below:-

Distribution Licensee	Total Number of feeders (all category) ending FY 2016-17	Urban Feeders (Nos.)			Rural Feeders (Nos.)		
		Total Number of Urban feeders ending FY 2016-17	Feeders with losses more than 25% ending FY 2015-16	Feeders with losses more than 25% ending FY 2016-17	Total Number of rural DS feeders ending FY 2016-17	Feeders with losses more than 50% ending FY 2015-16	Feeders with losses more than 50% ending FY 2016-17
UHBVNL	**4580**	684	271	**193**	861	813	**793**
DHBVNL	**5094**	726	206	**170**	882	539	**563**

An examination of the data of 11 KV feeders under UHBVNL made available for the period April, 2016 to March, 2017, shows that out of total 4580 feeders, 193 (4.21%) feeders in urban areas were having losses above 25% and 813 (17.75%) feeders in rural areas were having losses above 50%. Similar data of DHBVNL for the

period April, 2016 to March, 2017 shows that out of total 5094 feeders, 170 (3.433%) feeders in urban areas were having losses above 25% and 563 (10.92%) feeders in rural areas were having losses above 50%. The Commission observes that Discoms have been only managed to decrease the number of feeders with high losses in both urban and rural, however, still far behind the targets set by the Commission in this respect.

The above data from the licensees present a grim picture of the line losses on 11kV feeders. The losses on some urban feeders are as high as 90% and on rural Domestic Supply feeders as high as 95%, which by any means are not justified. The Commission also noted with concern that even after implementation of Mhara Gaon Jagmag Gaon (MGJG) scheme on rural RDS feeders, the number of rural feeders with losses above 50% has not marked any significant reduction.

As stated above there are feeders, both urban and rural, on which the losses are consistently above 50%, but the licensees have not bothered to get energy audit of such feeders done and take suitable measures to curtail the same. The Commission views this lapse on the part of licensees very seriously.

During public hearing as well as in their written objections, consumers and other stakeholders expressed their concern over high distribution loss levels both in UHBVNL and DHBVNL. They pointed out that cost of service has increased significantly due to unreasonably high distribution loss level and it would be extremely difficult for the licensees to remain financially viable unless immediate effective steps are taken to control the same.

The distribution licensees in their explanation has submitted that rampant theft, electromechanical meters in the system, meter inside the consumer premises etc. are the reasons for high losses and informed about the efforts made in this regard. Licensees however, have submitted that various loss reduction initiatives such as implementation of MGJG scheme, sanitation of feeders, replacement of defective/Electro-mechanical meters, relocation of meters, replacement of bare conductor with AB Cable, distribution system augmentation to remove overloading, DSM initiatives, IT implementation, theft detection drives are being exercised to reduce the losses.

The Commission in its Order dated 07.05.2015 on revised ARR of two licensees for FY 2015-16 had directed the licensees to bring down the total number of rural feeders with line losses above 50% as on 31.03.2015 to half by the end of the FY 2015-16 and to bring down the losses of all urban feeders below 25% by the time of next ARR/APR filing. However, the targets envisaged above have yet not achieved and only depicts marginal improvement.

The distribution licensees are directed to file, within 3 months, detailed reasons for not achieving the targets determined by the Commission in its tariff Order dated 07.05.2015. The Commission also directs the distribution licensees to bring down the total number of rural feeders with line losses above 50% as on 31.03.2017 to half and to bring down the losses of all urban feeders below 25% by the time of next ARR/APR filing. The distribution licensees are further directed to file report on the status of losses on each of these feeders and also prominently display them on their website.

3.6 Loss Reduction trajectory

In their Multi Year Tariff filing for control period FY 2014-15 to FY 2016-17, the two licensees had submitted the following distribution loss trajectory for FY 2013-14 and the control period.

Distribution Loss trajectory for the Discoms

Licensee	FY 2013-14	FY 2014-15	FY 2015-2016	FY 2016-17
DHBVNL	20.30%	19.01%	17.70%	16.70%
UHBVNL	27.50%	25.00%	23.00%	20.90%

These were the same as taken by them in their Financial Restructuring Plan (FRP) approved by the State Government. The Commission accorded it's in principle approval to this FRP vide Memo No. 3078/HERC/Tariff-2 FRP/2013 dated 12.11.2013.

The Govt. of India, Ministry of Power vide letter dated 27.04.2015 has approved the following revised AT&C loss trajectory for the two licensees.

Revised AT&C loss trajectory approved by MOP, GOI

Distribution Licensee	2013-14	2014-15	2015-16	2016-17	2017-18

DHBVNL	38.25	23.96	21.35	18.74	16.10
UHBVNL	33.78	31.29	27.88	24.48	22.00
Haryana State	36.26	27.55	24.56	21.55	19.05

In their Annual Performance Review petitions for FY 2015-16 (including revised Annual Revenue Requirement for FY 2016-17) as per Multi Year Tariff mechanism, the two licensees submitted following revised distribution loss trajectory considering the MOU agreement under UDAY . Distribution Loss trajectory projected by the Discoms during ARR filing for FY 2016-17 is reproduced below:-

Licensee	FY 2014-15 (Actual)	FY 2015-16 (Actual)	FY 2016-17	FY 2017-18
DHBVNL	24.47%	24.47%	21.70%	19.14%
UHBVNL	30.58%	33.10%	25.19%	20.85%

Regulation 57.2 of Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012 specifies the following norms for collection efficiency for the distribution licensees.

Norms for Collection Efficiency specified by the Commission

Distribution Licensee	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17
DHBVNL	98%	98.5%	99%	99%
UHBVNL	98%	98.5%	99%	99%

It has further been specified that any over achievement or under achievement in respect of Collection Efficiency shall be subject to incentive and penalty framework as specified in Regulation 12.

From perusal of information on Collection Efficiency submitted by the distribution licensees in their Annual Performance Review petitions for FY 2015-16 (including revised Annual Revenue Requirement for FY 2016-17) as per Multi Year Tariff mechanism, the Commission observes that both the licensees have failed to achieve the normative level of Collection Efficiency during FY 2015-16. The Collection Efficiency in some of the rural area and urban has been reported as low as 60% and 89% respectively which by no means is justified and attributing to financial losses on account of addition borrowings by the licensees to meet their revenue shortfall.

Based upon actual performance during for FY 2015-16 and FY 2016-17 and that projected for FY 2017-18, the AT&C losses of the two licensees works out as below:-

Loss trajectory projected by the Discoms

	FY 2015-16		FY 2016-17		FY 2017-18	
	DHBVNL	**UHBVNL**	**DHBVNL**	**UHBVNL**	**DHBVNL**	**UHBVNL**
Distribution Losses	24.47%	31.50%	21.99%	30.08%	19.94%	20.85%
Collection efficiency	97.83%	96.52%	100.42%	99.11%	99.00%	99.00%
AT&C Losses	**26.11%**	**33.88%**	**21.66%**	**30.71%**	**18.76%**	**21.64%**
AT&C Loss trajectory as per UDAY (MoU)	**25.22%**	**31.61%**	**22.48%**	**25.94%**	**18.76%**	**21.64%**

From the above values, following conclusion is inferred:-

a) FY 2015-16

The AT&C losses as calculated above in comparison to the AT&C losses as envisaged under UDAY indicate that there is under achievement by both the licensees. In respect of UHBVNL, the actual AT&C losses are 33.88% against target of 31.61%. In respect of DHBVNL, the actual AT&C losses are 26.11% against target of 25.22%.

b) FY 2016-17

From the data it is evident that DHBVNL achieved the AT&C targets as envisaged under UDAY scheme whereas UHBVNL has failed to achieve the same. UHBVNL during FY 2016-17 has only achieved a reduction of 3.71% in AT&C losses as compared to previous FY 2015-16, against the target reduction of 7.94% envisaged under UDAY. The under achievement of AT&C targets by UHBVNL will adversely impact the benefits envisaged under the UDAY scheme.

c) FY 2017-18

The AT&C losses have been pegged in line with the losses envisaged under UDAY scheme. Considering the past performance huge efforts shall be required to meet the AT&C loss targets pegged by the Licensees.

The distribution licensees are directed to explain the reason of under achievement even after re-fixing of their AT&C loss trajectory envisaged under UDAY scheme.

As specified under Regulation 12 of Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012, any overachievement and underachievement of the loss trajectory and the collection efficiency specified by the Commission shall be subject to incentive and penalty framework and that the distribution licensees shall provide a statement to this effect in the mid-year performance review and True-up.

The Distribution licensees as stipulated under Regulation 57.1 (f) of Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012 and as per the directive in Commission's Order on ARR of the two licensees for the control period FY 2014-15 to FY 2016-17 and also in Order on their Annual Performance Review Petition for FY 2014-15 have to submit the computation of supply voltage wise and consumer category wise distribution and AT&C losses. However, in compliance to above, the distribution licensees have submitted the voltage wise losses only. The Commission is of the considered view that a scientific methodology needs to be developed to calculate voltage wise and category wise losses so as the COS of respective category could be calculated precisely.

Accordingly, licensees are directed to finalize the methodology for Cost of supply (CoS) / voltage wise and category wise cost of services and submit the proposal to the Commission for its approval within three months from the date of issue of this Order.

3.7 Distribution Transformers (DTs) failure rate

The HERC vide its Regulation **(Standards of Performance for Distribution Licensee) Regulations 2004,** has specified the failure rate of distribution transformers as maximum 5% for urban area DTs and maximum 10% for rural area DTs.

In case the maximum permissible failure rate of distribution transformers exceeds the limits specified above, the Return on Equity (RoE) shall be reduced as specified under Regulation 65.1 (ii) of Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012.

The year-wise status of damage rate of distribution transformers, as per the information provided by UHBVNL and DHBVNL is given in the table below:-

Distribution Transformers failure rate

Sr. No.	Year		DHBVNL		UHBVNL	
			Failure Rate including transformers damaged within warranty period (%)	Failure Rate excluding transformers damaged within warranty period (%)	Failure Rate including transformers damaged within warranty period (%)	Failure Rate excluding transformers damaged within warranty period (%)
1	2009-10	Urban	5.79	4.58	8.95	6.56
		Rural	12.52	9.36	15.84	10.78
		Overall	**11.74**	**8.81**	**15.06**	**10.30**
2	2010-11	Urban	7.21	6.09	13.38	9.14
		Rural	12.36	9.46	10.01	6.75
		Overall	**11.81**	**9.09**	**10.29**	**6.95**
3	2011-12	Urban	7.21	5.54	10.83	7.76
		Rural	9.98	7.31	10.01	6.38
		Overall	**9.71**	**7.14**	**10.08**	**6.49**
4	2012-13	Urban	6.66	5.17	10.83	7.76
		Rural	10.30	7.36	10.01	6.38
		Overall	**9.94**	**7.14**	**10.08**	**6.49**
5	2013-14	Urban	8.53	6.50	10.93	7.81
		Rural	10.61	7.14	9.49	6.25
		Overall	**10.42**	**7.08**	**9.60**	**6.37**
6	**2014-15**	Urban	7.15	5.22	9.87	6.31
		Rural	10.53	6.65	9.59	5.63
		Overall	**10.22**	**6.52**	**9.62**	**5.68**
7	**2015-16**	Urban	5.63	3.98	7.18	4.46
		Rural	9.70	6.14	9.3	5.38
		Overall	**9.32**	**5.94**	**9.13**	**5.38**
8	**2016-17**	Urban	4.96	3.26	**4.62**	**1.69**
		Rural	10.53	6.67	**7.53**	**3.67**
		Overall	**9.95**	**6.31**	**7.27**	**3.50**

The DT damage rate is to be analyzed on the basis of total number of DTs damaged, irrespective of the fact whether the transformer damaged was within warranty period on not, as all these DTs were part of the system. The Commission considered it appropriate to consider the total damage DT irrespective of damaged within warranty or not. The high level of transformer damage rate not only affect the continuity of supply but also reflects upon poor monitoring and maintenance of distribution system which in turn also impact the finances of the distribution licensees adversely.

The data indicated in the table above shows that in respect of DHBVNL, the DT damage rate both in urban & rural areas is above the prescribed limits in all the years

since 2009-10. In the year 2014-15 and 2015-16 also, the DT damage rate in urban area is 7.15% and 5.63% respectively which is above the limit of 5%. Similarly, the DT damage rate for rural area in the year 2014-15 and 2016-17 i.e. 10.53 % also exceeds the prescribed limit. Whereas, DHBVNL in rural area during year 2015-16 has maintained the DT damage rate marginally below the limits of 10%. Moreover, the overall damage rate of DT has increased marginally in comparison to previous year, which is matter of concern and calls for appropriate step to contain the damage rate of DTs .

In respect of UHBVNL, the DT damage rate, both in urban & rural areas, is above the prescribed limits of 5% & 10% respectively in all the years from 2009-10 to 2012-13. In the years 2013-14, 2014-15 and 2015-16, the DT damage rate in urban area is 10.93%, 9.87% and 7.18 % respectively, which is significantly higher than the prescribed limit. In all these years, the damage rate of DTs in urban areas is also much above the limit of 5%. However, during FY 2016-17, the licensee has registered a significant improvement by reducing the overall damage rate to 7.27% in FY 2016-17 from 9.13% in FY 2015-16.

The Commission noted it with concern that licensees have failed to achieve the damage rate within limits prescribed by the Commission considering the fact that the prescribed limits are far relaxed in comparison of international standards and even standards achieved by Tata Power and other power utilities in India.

The licensees have reported that measures such as routine checking, load balancing, regular checking of oil level, proper earthing of DTs, installation of proper size of fuse at HT and LT side, maintaining of LT lines to ensure proper working of DTs, augmentation of overloaded DTs, mandatory visit to field by senior officers etc. are being taken to reduce the damage rate of DTs. However, in spite of observations of the Commission in its Order dated 01th August, 2016 on APR petition of the licensees for the FY 2015-16 and revised ARR for FY 2016-17, licensees have not examined and reported the cause of damage of DTs in the areas attributing higher damage rate. **The Commission again directs the licensees to examine the cause of damage of DTs in the areas where it is above the norms and endeavour to bring down the distribution transformer damage rate below the prescribed limits by ensuring proper maintenance and protection. Further, the reasons for excessive damage**

of DTs which are in warranty period be examined separately and intimated to the Commission along with the action taken thereof in the matter.

As per Regulation 65.1 (iii) of Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations 2012, the distribution licensee shall maintain a proper record of failure of the distribution transformers and submit the same in the quarterly report to the Commission. However, DHBVNL has failed to do so in spite of issuing directions in Commission's Order dated 01st August, 2016 on their APR petitions for FY 2016-17. **The Discoms are again directed to ensure that quarterly reports be submitted regularly without fail.**

3.8 Non replacement of defective energy meters by the distribution licensees

The two companies, during the public hearing on their Annual Performance Review petition for FY 2016-17 (including revised Annual Revenue Requirement for FY 2017-18), intimated the following details with regard to defective energy meters.

Status of Defective meters

Meter category	No. of defective meters (ending March, 2016)			No. of defective meters (ending March, 2017)		
	Rural	Urban	Total	Rural	Urban	Total
In respect to UHBVNL						
Single Phase Meters	38970	5460	44430	56523	6861	63384
Three Phase Meters	603	447	1050	1309	961	2270
Total	39573	5907	45480	57832	7822	65654
In respect to DHBVNL						
Single Phase Meters	98097	15835	113932	104101	9133	113234
Three Phase Meters	46287	4970	51257	49753	3826	53579
Total	144384	20805	165189	153854	12959	166813
Grand Total	**183957**	**26712**	**210669**	**211686**	**20781**	**232467**

The Commission observes that the total number of defective meters of two licensees have increased to 232467 (ending March, 2017) from the last year figures of 210669 (ending March, 2016) numbers. In respect of UHBVNL these were 65654 and in respect of DHBVNL these were 166813 nos. The latest information shown in the

table above indicates that total number of defective meters in the system have increased in both the Discoms instead of going down. This status indicates that the licensees have not made any concrete efforts to clear the backlog of defective meters. This is a matter of great concern and reflects badly on the operations and functioning of the Licensees.

As already pointed out, supply of electricity through defective/dead stop meter for a long time, not only results in harassment to the consumer but also lead to leakage of revenue for the licensees, on account of improper billing and improper measurement of power supplied. It also results in misuse and wastage of power.

The Commission had been observing the position with concern ever since a long time, but the position did not improve. The Commission, therefore, as per powers conferred to it under Sub-section (3) of Section 55 of the Electricity Act 2003, passed an Order on 10th January 2013, in the matter of non-replacement of defective energy meters by the distribution licensees. Vide this Order, both the distribution licensees were directed to replace all the meters lying defective as on 10th January 2013 in the Municipal Areas by 30th April 2013, but the job has not yet been accomplished.

The Commission's Order dated 07th May 2015, further assigned the following targets to the licensees for replacement of defective energy meters.

a) Single-phase meters: The number of defective energy meters should not exceed 10,000 at any time after December, 2015.
b) Three phase meters: The number of defective energy meters should not exceed 500 at any time after December, 2015.

The licensees vide Commission's Order dated 07th May, 2015 were also informed that failure to comply with the above targets set by the Commission shall attract the penal provision of Section 142 of the Electricity Act, 2003 against the XEN and above responsible for the lapse. However, both the licensees failed miserably in achieving the targets for replacement of defective meters set by the Commission.

The licensees vide Commission's Order dated 01st August, 2016 were again, directed to submit a detailed report within two months from the date of issue of Order, indicating the detailed reason for not meeting with the targets assigned failure to do so shall attract penal action as per the Electricity Act, 2003.

The Licensees in their reply has submitted that the replacement of meter is an ongoing/continuous process and substantial meters have been replaced during the current year as well as in the previous year. It was also informed that crack teams at sub-division level have been formed for immediate action on the identified cases of meter replacement. DHBVNL has informed that thrust have been made in urban area and defective meters are being replaced under feeder sensitization scheme under which meters are being relocated and defective meter is being replaced. Whereas, in rural areas defective meters are being replaced under Mhara Gaon Jagmag Gaon Scheme (MGJGS). Licensee have also sought relaxation in the ceiling limits of defective meters targets and urged for defining the in terms of percentage say 5% or 10% of total installed electricity meters.

The Commission is not satisfied with progress made by both the distribution licenses for replacement of defective meters during year 2015-16 and year 2016-17. The Commission observes that Standard of Performance Regulations notified on 16th July, 2004 provides for normative level of defective energy meter as 1% of total energy meters and the licensees have even failed to achieve the same. The Regulations further provides for replacement of defective meters within 7 days after the same is established defective on checking and delay in doing so attracts penalty of Rs.100 for each day of delay subject to a maximum of Rs 3000/-.

The Commission feels that sincere efforts are not made instead for replacement of defective energy meters. The licensees should ensure availability of energy meters at Nigam's stores, empower its officials and plan its actions suitably in order to achieve the targets.

Accordingly, the licensees are, therefore, once again directed to submit a detailed report within two months from the date of issue of this Order, indicating the detailed reason for not meeting with the targets assigned along with future course of action to achieve the targets, failure to do so shall attract penal action as per the Electricity Act, 2003. The licensees are also directed to intimate the average time taken for replacement of defective meter along with area wise and age wise defective meters pending for replacement.

3.9 Non-replacement of Electro-mechanical meters

Besides the defective energy meters, following Electro-mechanical meters are yet to be replaced by the two distribution licensees.

Details of Electro-mechanical meters yet to be replaced

Meter category	Electro-mechanical meters in respect of UHBVNL (ending March, 2017)			Electro-mechanical in respect of DHBVNL (ending march, 2017)			Total Electro-mechanical meters
	Rural	Urban	Total	Rural	Urban	Total	Total
Single Phase Meters	393416	9240	402656	232553	35567	268120	**670776**
Three Phase Meters	233	133	366	50333	10552	60885	**61251**
Total	393649	9373	**403022**	282886	46119	329005	**732027**

Total number of Electro-mechanical meters pending for replacement as on September, 2015 as per the ARR Order dated 01.08.2016 were 825978 nos. i.e. 429040 nos. and 396938 nos. with respect of UHBVNL and DHBVNL respectively. It reveals that merely 93951 nos. Electro-mechanical meters were replaced by both the licensees since from October, 2015 to March, 2017.

Section-55 (1) of the Electricity Act, 2003 provides that no licensee shall supply electricity, after the expiry of two years from the appointed date, except through installation of a correct meter in accordance with the regulations to be made in this behalf by the Central Electricity Authority. The Central Electricity Authority vide its Regulations notified on 17th March, 2006 called as the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006, under Section-4 (1) provides that all interface meters, consumer meters and energy accounting and audit meters shall be of static type. As such by March 2008, the distribution licensees should have replaced all the Electro- mechanical meters with static meters. But even after 9 years of the expiry of appointed date, more than seven (7) lakh Electro- mechanical meters (13% of the total energy meters) are still in use. These Electro- mechanical meters being very old may not be recording energy accurately and may be one of the reasons of under assessment of energy sold.

In Commission's Order 07th May 2015 on APR petitions of the licensees for FY 2014-15, the licensees were directed to replace these Electro-mechanical meters by 31st March 2016 by making all necessary arrangements. Further, not satisfied with the progress reported during the ARR filing of previous year, the Commission vide in its

ARR Order for FY 2016- 17 directed the licensees to file, within 3 months, the detailed reasons for not complying with the directive of the Commission.

In this respect, the licensees however, have informed that most of the EM meters are located in rural area where they have to face lot of resistance in replacing the EM meters. DHBVNL in its reply has further emphasised that being located in rural area theses EM meters contributes only 7 - 8% of total revenue and due to practical reasons focus is preliminary on urban areas. But as per reported progress, large numbers of EM meters are still pending for replacement even in urban areas.

The Commission is not satisfied with the progress and the reasons imparted by the distribution licensees and therefore again directs the licenses to replace the existing EM meters in following manner:-

1. **All the EM meters exist in the urban areas should be replaced by December, 2017.**
2. **50% of EM meters exist in rural areas should be replaced by December, 2017. The licensee should endeavour to replace the EM in a systematic manner by taking a specific area/circle at a time.**

The distribution licensees are also directed to submit the detailed action plan for replacement of defective meters and electromechanical meters consistent with the time lines set by the Commission in the matter.

Failure to comply with the above targets set by the Commission shall attract the penal provision of Section 142 of the Electricity Act, 2003 against the official/officer responsible for the lapse.

3.10 Procurement of single phase and three phase LT meters.

The Commission observes that the licensees are still procuring normal static meters. The technical specifications for smart meters already stand issued by the Central Electricity Authority. The revised Tariff Policy, 2016 stands issued by the Govt. of India vide Notification dated 28th January, 2016. This Tariff Policy specifies that the Commission shall mandate for smart meters for consumers having monthly consumption above 500 units at the earliest but not later than 31.12.2017 and for consumers having monthly consumption above 200 units by 31.12.2019.

The Commission in its ARR Order dated 01st August 2016 directed the licensees to procure smart meters only in future so as the targets set under the NTP, 2016 can be realised. The Licensees in this respect has informed that the smart metes technology is in nascent stage and their fitness in the system is being assured by implementing pilot projects at Panipat city and Gurugram.

The Commission feels that use of smart meters as envisaged under NTP, 2016 is imperative to avoid human interface in meter reading and has the potential to generate huge information/ data which can efficiently be utilized for the system strengthening, theft detection, system planning, best utilization of resources, implementation of DSM schemes etc. **The licensees are, therefore, directed to plan their requirement for the smart meters, which can be configured both for pre-paid and post-paid functions, so as the time lines as envisaged under NTP, 2016 for roll out of smart meters across mentioned categories can be met**.

HERC

Chapter 4

DISTRIBUTION AND RETAIL SUPPLY TARIFF DETERMINATION FOR THE FY 2017-18

4.1 Tariff Proposal filed by the UHBVNL & DHBVNL (Discoms)

UHBVNL, in its present Petition, has submitted that the ARR including revenue gap of FY 2016-17 and the FY 2017-18 have been projected based on actual of the FY 2015-16 at the current level of tariff and FSA. It has been further submitted that the resultant revenue gap with the current level of tariff and FSA shall be met through the Operational Funding Requirement (OFR) as available under UDAY.

4.2 Cost of Service (CoS)

In the absence of a comprehensive consumer category wise CoS filed by the Discoms, the Commission, in line with the APTEL's judgement dated 30.05.2011 in Appeal No. 102,103 & 112 of 2010 had adopted the methodology suggested by the Hon'ble APTEL in the ibid judgement dated 30.05.2011 for broadly working out voltage wise CoS for the FY 2017-18. However, the amended National Tariff Policy, 2016 has provided for a revised CSS Formula. Hence, the Commission has considered it appropriate to estimate Cross-Subsidy Surcharge in line with the National Tariff Policy, 2016.

4.3 Method to address the Projected Revenue Gap

The Commission observes that largely on account of true-up of the FY 2015-16 ARR including un addressed revenue gap of the FY 2013-14 , as per the MYT Regulations, carried over to the ARR of the FY 2017-18, revenue gap at current tariff has emerged.

Additionally, the Commission, as previously mentioned, has allowed RoE to the Discoms in the FY 2017-18 at the same rate as allowed to HPGCL and HVPNL. Consequently, RoE amounting to Rs. 364.72 Crore for both the Discoms shall be recovered along with the revenue gap of Rs. 646.85 Crore for the FY 2017-18. Resultantly, the tariff is required to be realigned to garner about Rs. 1011 Crore considering 9 months of recovery period during the current financial year) While doing

so the Commission has ensured that the revised tariff remains within +/- 20% of the average cost of supply as per the National Tariff Policy.

The revised tariff shall be as under. Additionally, the Commission has introduced Time of Use Tariff.

Sr. No.	Tariff for 2016-17				Tariff for 2017-18 (W.E.F 01.07.2017)			
	Category of consumers	**Energy Charges (Paisa / kWh or/ kVAh)**	**Fixed Charge (Rs. per kW per month of the connected load / per kVA of sanctioned contract demand (in case supply is on HT) or as indicated**	**MMC (Rs. per kW per month of the connected load or part thereof)**	**Category of consumers**	**Energy Charges (Paisa / kWh or/ kVAh)**	**Fixed Charge (Rs. per kW per month of the connected load / per kVA of sanctioned contract demand (in case supply is on HT) or as indicated**	**MMC (Rs. per kW per month of the connected load or part thereof)**
1	**Domestic Supply**				**Domestic Supply**			
	Category I: (Total consumption up to 100 units per month)				**Category I: (Total consumption up to 100 units per month)**			
	0 - 50 units per month	270/kWh	Nil	Rs. 115 up to 2 kW and Rs. 70 above 2 kW	0 - 50 units per month	270/kWh	Nil	Rs. 115 up to 2 kW and Rs. 70 above 2 kW
	51-100	450/kWh	Nil		51-100	450/kWh	Nil	
	Category II: (Total consumption more than 100 units/month and up to 800 units/month))				**Category II: (Total consumption more than 100 units/month and up to 800 units/month))**			
	0-150	450/kWh	Nil	Rs. 120 up to 2 kW and Rs.90 above 2 kW	0-150	450/kWh	Nil	Rs 125 upto 2 kW and Rs.75 above 2 kW
	151-250	500/kWh	Nil		151-250	525/kWh	Nil	
	251-500	605/kWh	Nil		251-500	630/kWh	Nil	
	501-800	675/kWh	NII		501-800	710/kWh	Nil	
	Category III: (Total consumption more than 500 units/month and upto 800 Units)				**Category III:**			
	801 Unit and above	675/kWh (flat rate no telescopic benefits)	Nil	Rs. 120 up to 2 kW and Rs.90 above 2 kW	801 Unit and above	710/kWh (flat rate no telescopic benefits)	Nil	Rs. 125up to 2 kW and Rs.75 above 2 kW
2	**Non Domestic**				**Non Domestic**			
	Upto 5 kW (LT)	605/kWh	Nil	Rs. 250/kW up to 5 kW and Rs. 225/kW above 5 kW & up to 20 kW	Upto 5 kW (LT)	635/kWh	Nil	Rs. 235/kW
	Above 5 kW and Up to 20 kW (LT)	675/kWh	Nil		Above 5 kW and Up to 20 kW	705/kWh	Nil	
	Above 20 kW upto 50 kW (LT)	615/kVAh	170/kW	Nil	Above 20 kW and upto 50 KW (LT)	660/kVAh	160 / kW	Nil
	Existing consumers above 50 kW upto 70 kW (LT)	650/kVAh	170/kW	Nil	Existing consumers above 50 kW upto 70 kW (LT)	695/kVAh	160 / kW	Nil
	Consumers above 50 kW (HT)	630/kVAh	170/kW	Nil	Consumers above 50 kW (HT) New	675/kVAh	160 / kW	
3	**HT Industry (above 50 kW)**				**HT Industry (above 50 kW)**			
	Supply at 11 KV	615/kVAh	170/kVA	Nil	Supply at 11 KV	665/kVAh	170/kVA	Nil
	Supply at 33 KV	605/kVAh	170/kVA	Nil	Supply at 33 KV	655/kVAh	170/kVA	Nil
	Supply at 66 kV or 132 kV	595/kVAh	170/kVA	Nil	Supply at 66 kV or higher	645/kVAh	170/kVA	Nil
	Supply at 220 kV	585/kVAh	170/kVA	Nil	Supply at 220 kV	635/kVAh	170/kVA	NIL
	Supply at	575/kVAh	170/kVA	Nil	Supply at	625/kVAh	170/kVA	NIL

	400 kV				400 kV			
	Arc furnaces/ Steel Rolling Mills	645 Paisa per kVAh if supply is at 11 kV (See note 3 below)	190/kVA	Nil	Arc furnaces/ Steel Rolling Mills also applicable to Open Access	695 Paisa per kVAh if supply is at 11 kV (See note 2 below)	190/kVA	Nil
4	**LT Industry - upto 50 kW**				**LT Industry - upto 50 kW**			
	Upto 10 KW	595/kVAh	Nil	Rs. 185/kW	Upto 10 KW	635/kVAh	Nil	Rs. 185/kW
	Above 10 KW and upto 20 KW	625/kVAh	Nil	Rs. 185/kW	Above 10 KW & upto 20 kW	665/kVAh	Nil	Rs. 185/kW
	Above 20 KW and upto 50 KW	600/kVAh	Rs.160 /kW to be levied on 80% of the connected load	Nil	Above 20 KW and upto 50 KW	640/kVAh	Rs 160 on 80% of CL	Nil
	Existing consumers above 50 kW upto 70 kW (LT)	625/ kVAh			Existing consumers above 50 kW upto 70 kW (LT)	665/kVAh	Rs 160 on 80% of CL	Nil
5	**Agriculture Tube-well Supply**				**Agriculture Tube-well Supply**			
	Metered: (i) with motor upto 15 BHP	10/kWh	Nil	Rs. 200 / BHP per year	**Metered:** (i) with motor upto 15 BHP	10/kWh	Nil	Rs. 200 / BHP per year
	(ii) with motor above 15 BHP	8/kWh	Nil		(ii) with motor above 15 BHP	8/kWh	Nil	
	Un-metered (Rs. / Per BHP / Month): (i) with motor upto 15 BHP	Nil	Rs. 15 / Per BHP / Month	Nil	**Un-metered (Rs. / Per BHP / Month):** (i) with motor upto 15 BHP	Nil	Rs. 15 / Per BHP / Month	Nil
	(ii) with motor above 15 BHP	Nil	Rs. 12 / Per BHP / Month	Nil	(ii) with motor above 15 BHP	Nil	Rs. 12 / Per BHP / Month	Nil
6	**Public Water Works**	690/kWh	180/kW	Nil	**Public Water Works / Lift Irrigtaion / MITC / Street Light**	735/kWh	180/kW or BHP except street Light	Nil
7	**Lift Irrigation**	690/kWh	180/BHP	Nil				
8	**MITC**	690/kWh	180/BHP	Nil				
9	**Street Lighting**	690/kWh	Nil	Rs. 180/kW				
10	**Railway Traction**				**Railway Traction & DMRC**			
	Supply at 11 KV	610/kVAh	160/kVA	Nil	Supply at 11 KV	655/kVAh	160/kVA	Nil
	Supply at 33 KV	600/kVAh	160/kVA	Nil	Supply at 33 KV	645/kVAh	160/kVA	
	Supply at 66 or 132 kV	590/kVAh	160/kVA	Nil	Supply at 66 or 132 kV	635/kVAh	160/kVA	
	Supply at 220 kV	580/kVAh	160/kVA	Nil	Supply at 220 kV	625/kVAh	160/kVA	
11	**DMRC**				**DMRC**			
	Supply at 66 kV	590/kVAh	160/kVA	Nil	Supply at 66 kV or 132 kV	635/kVAh	160/kVA	
	Supply at 132 kV	590/kVAh	160/kVA	Nil				
12	**Bulk Supply**				**Bulk Supply**			
	Supply at LT	610/kVAh	160/kW or Rs. 160/kVA as applicable (see note 4)	Nil	Supply at LT	650/kVAh	160/kW or Rs. 160/kVA as applicable (see note 4)	Nil
	Supply at 11 kV	600/kVAh		Nil	Supply at 11 kV	640/kVAh		Nil
	Supply at 33 kV	590/kVAh		Nil	Supply at 33 kV	630/kVAh		NI
	Supply at 66	580/kVAh		Nil	Supply at 66	620/kVAh		Nil

	or 132 kV				or 132 kV			
	Supply at 220 kV	575/kVAh		Nil	Supply at 220 kV	615/kVAh		Nil
13								
	For total consumption in a month not exceeding 500 units/ flat/dwelling unit (DU).	470 /kWh	Rs. 100 /kW of the recorded demand	Nil	For total consumption in a month not exceeding 500 units/ flat/dwelling unit (DU).	525 /kWh	Rs. 100 /kW of the recorded demand	Nil
	For total consumption in a month exceeding 500 units/flat/ DU.	585 /kWh			For total consumption in a month exceeding 500 units/flat/ DU.	620 /kWh	Rs. 100 /kW of the recorded demand	Nil
14	**Independent Hoarding / Decorative Lightning**	830/kWh	180/kW	Nil	**Independent Hoarding / Decorative Lightning**	854/kWh	180/kW	Nil
15	**Temporary Metered supply**	Energy charges 1.5 times the energy charges of relevant category for which temporary supply has been sought plus fixed charges/ MMC at normal rates of relevant consumer category			**Temporary Metered supply**	Energy charges 1.5 times the energy charges of relevant category for which temporary supply has been sought plus fixed charges/ MMC at normal rates of relevant consumer category.		

Notes:

1. Energy charges in case of Domestic consumers are telescopic in nature up to the consumption of 800 Units / month. In case of consumption more than 800 units/month, no slab benefit shall be admissible and tariff applicable will be 710 paisa/kWh for total consumption.
2. In case of Arc furnaces/ Steel Rolling Mills for supply at 33 kV and above, the HT Industrial tariff at the corresponding voltage level shall be applicable.
3. Fixed charges for HT Industrial supply and Bulk Supply category are in Rs./kVA of Contract Demand. For Railways and DMRC, the fixed charges are in Rs./kVA of the billable demand.
4. In case of Bulk Supply Consumers (other than Bulk Supply – DS), the fixed charges are in Rs./kW of the connected load where contract demand is not sanctioned and in Rs./kVA of contract demand where contract demand is sanctioned.
5. 80% of the connected load shall be taken into account for levying fixed charges where leviable in case of LT industrial Supply.
6. Fixed charges for unmetered AP consumers, MITC and Lift Irrigation category are in Rs. / BHP / month.
7. Fixed charges for Bulk Supply Domestic are in Rs. / kW of the recorded demand.
8. Under Bulk Supply (Domestic) category no benefit of lower slab shall be admissible in the higher consumption slabs. Total consumption shall be charged at a single tariff depending upon the average consumption/flat/residential unit for that month.
9. In case of single point supply as per HERC (Single Point Supply to Employers' Colonies, Group Housing Societies and Residential or Commercial cum Residential

Complexes of Developers) Regulations, 2013, Bulk Supply (Domestic Supply) tariff shall be applicable. A rebate of 4% in case of supply at 11 kV and 5% in case of supply at higher voltage in the energy consumption as recorded at Single Point Supply meter shall be admissible. NDS load, if any, beyond the prescribed limit as per schedule of tariff, the NDS tariff shall be applicable on monthly consumption corresponding to the NDS load as detailed in the said Regulation. The Bulk Supply (Domestic) Tariff shall apply only to the consumer categories covered by the Single Point Supply Regulations notified by the Commission

10. In addition to the tariff as above, the Discoms shall levy FSA as per HERC (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012.
11. The above tariff does not include Electricity Duty, Municipal Tax and FSA.
12. In case of Health and Educational Institutions having a total load exceeding 20 kW, these shall be treated as non–domestic category where the entire load is NDS. However if there is mixed load or there is some other category's load (other than Industrial) in the total load and if such other load exceeds 10 % of the total load then Bulk Supply tariff shall be applicable.
13. The surcharge of 30 paise/ per unit arc furnace/ steel rolling mills shall also be applicable on Open Access power.
14. The fixed charge for HT industrial consumers with contract demand of 4 MVA and above shall be Rs. 180/ kVA/month.
15. The incentive on installation of solar system shall be Rs. 1/- per unit only for all DS consumers up to 31.03.2018.
16. The Electricity Duty, Municipal Tax and FSA shall be charged at kWh.
17. The Schedule of tariff for supply of electricity by the Discoms shall get modified accordingly.
18. The consumers who will deposit advance payment online through RTGS/NEFT in the banks authorized by the Discoms equivalent to 120% of energy charges paid in the previous year, within one month of this Order, shall be given a discount of equivalent to Savings Bank rate till the time entire advance is adjusted.

4.4 Time of Use Tariff / Time of Day (ToD) Optional

The distribution and retail tariff approved by the Commission for different categories of consumers is uniform throughout the day i.e. the rate is uniform and not time differentiated. However, Time of Use (ToU) tariff, already introduced by quite a few

SERCs, is a tariff structure wherein different tariff rates are applicable for different time of the day. The tariff rates for time blocks of the day is fixed keeping in view the system load conditions as also Discom(s) per unit power purchase cost over different time blocks of the day. It is an established fact, evident from the system load curve, that demand is low during certain time blocks like during night hours; similarly, during certain time blocks the system demand is at its peak.

The transmission/distribution system, in order to ensure reliability and continuity of supply, is generally designed to meet the peak demand even if it occurs for a few hours. This compulsion makes the system costlier and uneconomical, as during off peak / normal demand hours they remain under-utilised. This is apparent from the fact that the peak system demand in Haryana, as per 24X7 Power for All document dated December, 2015, the State would "see an increase in peak demand from 9152 MW in the FY 2014-15 to 12112 MW in the FY 2018-19" with corresponding increase in energy requirement. The peak demand and the peak demand met in Haryana were of the order of 9262 MW that occurred during July, 2016 and the same declined to a low of 6642 MW in November, 2016. Further, the State has a typical demand variation between paddy season (June to September) and rest of the year. It is worthwhile to note that during paddy season the demand touches its maximum but reduces to less than half during rest of the time. In addition to the seasonal variation in demand there also exits intraday variation. Thus, in the considered view of the Commission there is a need to put in place a 'price signal' to even out the demand curve so as to strike a trade – off between capital intensive augmentation of the transmission and distribution system including tie-up of additional power and a tariff design that would shift demand from peak periods to off-peak / normal periods and thereby minimise investment requirement as well as surplus power and trading losses thereto.

Hence, in order to optimise financial resources, it is essential to 'shave peak' and 'fill the valley' instead of pumping in fresh investments or the Discoms imposing restrictions on drawl of power by the consumers during peak load hours so as to contain the system demand during peak load hours and to avoid tripping on account of overloading.

4.4.1 Statutory Provisions

In order to achieve the aforesaid objectives by introducing ToU tariff, the Commission has examined the statute occupying the field as under:-

i) Section 62(3) of the Electricity Act, 2003 provides as under:-

> *"The Appropriate Commission shall not, while determining the tariff under this Act, show undue preference to any consumer of electricity but may differentiate according to the consumer's load factor, power factor, voltage, total consumption of electricity during any specified period or the time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which the supply is required."*

As per the ibid provision, the Commission while determining tariff, can differentiate accordingly to the time at which supply is required i.e. accordingly to time of use. Thus, the Commission can implement ToD tariff for categories of consumers where it is felt that differentiation based on time of use will be most effective and feasible.

ii) The provision 5.4.9 of the NEP also advocate the ToU tariff as under:-

> *"5.4.9 The Act requires all consumers to be metered within two years. The SERCs may obtain from the Distribution Licensees their metering plans, approve these, and monitor the same. The SERCs should encourage use of pre-paid meters. In the first instance, TOD meters for large consumers with a minimum load of one MVA are also to be encouraged. The SERCs should also put in place independent third-party meter testing arrangements".*

iii) Further, clause 8.4 of the NTP explicitly lays emphasis on ToD / ToU Tariff. The said clause is reproduced below:-

"8.4 Definition of tariff components and their applicability

1. Two-part tariffs featuring separate fixed and variable charges and Time differentiated tariff shall be introduced on priority for large consumers (say, consumers with demand exceeding 1 MW) within one year. This would also help in flattening the peak and implementing various energy conservation measures".

In view of above provisions of the Electricity Act, 2003, the National Electricity Policy and the National Tariff Policy framed by the Central Government, the Commission is under statutory obligation to introduce ToU / ToD tariff.

The cost variations warrants and metering is cost-effective in Haryana, seasonal and time-of-use tariffs can be instituted for electricity consumers in Haryana. It is expected to encourage changing the way end consumers use electricity. Time of Use tariff will allow customers some flexibility to choose when they use electricity. Electricity consumed in the Low Rate period (off peak period) will be cheaper than usage in the High Rate period. When choosing a Time of Use Tariff, consumers need to consider the time and application of power usage in order to achieve the lowest cost option.

In Haryana, the cost differences during different time blocks over a period of 24 hours are currently large enough to warrant time differentiated prices for electricity. Such a change in tariff design would increase the efficient use of electricity in Discoms service territory i.e. UHBVNL & DHBVNL. Further, the Grid Frequency based UI charges in the Northern Region also establishes the fact that in 96 time blocks of 15 minutes each the UI rates shows wide intra-day variations.

As previously noted, prices for electricity that reflect differences in cost as much as possible are usually more efficient. This is particularly true in the case of seasonal and ToU tariffs. It is desirable that Time of Use (TOU) tariffs are instituted in those consumer categories where it is feasible to begin with and where adequate metering exists for this purpose.

The ToD tariff introduced by a few other SERC's were examined. **DERC** (Delhi FY 2015-16) defined peak load hours from 1300 Hrs to 1700 Hrs and 2100 Hrs to 2400 Hrs. Consumption during these peak demand hours were subjected to a surcharge on

Energy Charges of 20%. The off Peak Hours were defined as 0300-0900 Hrs and a rebate of 20% on Energy Charges was allowed for consumption during these off peak hours. Further, for consumption during other than Peak and Off – Peak hours normal Energy Charges were made applicable. Additionally, a rebate of 2.5% on the Energy Charges for supply at 33/66 kV and 4% for supply at 220 kV was made applicable. The ToD option was available to all consumers except Domestic Supply consumers with sanctioned load / MDI is 25 kW / 27 kVA and above. Similarly, PSERC (Punjab FY 2016-17) during the defined peak and off peak hours allowed a surcharge / rebate on Energy Charges.

GERC (Gujarat FY 2016-17, HTMD – I) identified two peak demand hours i.e. 0700 Hrs to 1100 Hrs and 1800 Hrs to 2200 Hrs and introduced a surcharge on Energy Charges in a graded manner i.e. Rs. 0.65 / Unit for billing demand up to 500 kVA and Rs. 1.0 / Unit for billing demand above 500 kVA.

UPSERC (FY 2016-17 KESCL Large and Heavy Power for supply at 11 kV) identified peak demand hours as 1700 Hrs to 2200 Hrs and levied a surcharge on Energy Charges @ 15%. While during the off peak hours i.e. 2200 Hrs to 0600 Hrs rebate of 7.5% was allowed. In the case of induction furnace / rolling / re-rolling Mill the rebate was extended to 20%.

WBERC (West Bengal Fy 2015-16 for WBSEDCL) introduced two ToD tariff scheme i.e. normal ToD and prepaid ToD eg. For Industries (11 kV) the applicable energy charges during summer months was Rs. 6.85 / kWh, Rs. 6.86 / kWh during monsoon months and Rs. 6.85 / kWh during winter months and Rs. 320 / kVA / month was the demand charge. In this case normal ToD was allowed and tariff rate (instead of rebate / surcharge) was determined i.e. from 0600 Hrs to 1700 Hrs the rates were summer months Rs. 6.81 / kWh, Rs. 6.80 / kWh during monsoon months and Rs. 6.79 / kWh during winter months. From 1700 Hrs to 2300 Hrs the tariff during summer months was Rs. 9.53 / kWh, Rs. 9.52 / kWh during monsoon months and Rs. 9.51 / kWh during winter months. Further, from 2300 Hrs to 0600 Hrs the tariffs during the summer months was Rs. 4.50 / kWh, Rs. 4.49 / kWh during monsoon months and Rs. 4.48 / kWh during winter months. The demand charge continued to be Rs. 320 / kVA / month i.e. the same as in the case of normal tariff scheme.

To begin with, the Commission has attempted to introduce ToU tariff as an option to gauge the elasticity of demand vis-a-vis tariff and its impact on the revenue of

the Distribution licensee(s). **The option shall be available to the H.T Industry including Furnace, L.T. Industry, H.T. Non-Domestic, Bulk Supply consumers (Excluding Bulk DS), Public Water Works & Lift Irrigation**. The ToU charge shall consist of two time periods, peak and off-peak. The peak, off peak and normal demand period during these months are as under:-

Peak Demand Hours	6.30 P.M to 10.00 P.M
Off Peak Demand Hours	10 P.M. to 05.30 A.M (next day)
Normal Demand Hours	05.30 A.M. to 6.30 P.M.

The Commission has taken note of the fact that during the months of October to April (next year) the aforesaid classification is evident from the load profile. However, during the months of June to September the load classified as off peak in the table do not hold good as the load at night is high and shows little variation vis-a-vis peak demand hours leading to the inference that during these months there are no off peak hours as such. Additionally, it is observed that during evening hours June to September the evening peak is largely influenced by introduction of Lighting and Cooling load and not by Industrial or commercial load as such. Further, from the months of June to September, the load seeks lower levels i.e. it drops down from an average of about 7500 MW to an average of about 5000 MW as against maximum demand met by the Discoms of about 9150 MW. Thus, the possibility of shifting some Industrial load during the night hours cannot be denied. However, these issues require further examination including role of regulated supply to A.P. tube-well consumers.

In view of the above, the Commission has considered it appropriate to introduce following ToU tariff from the month of October to March 2017.

Further, the peak and off-peak hours may vary to a certain extent across Haryana. Hence, to mitigate such variations, the SE / XEN of the area concerned shall, where there may be significant variations of more than 30 minutes, re-determine the peak hours of supply and accordingly notify the eligible consumers of his area regarding the same.

In all such cases where the eligible consumer opts for ToU Tariff the Peak Load Exemption Charge (PLEC), if presently applicable, on the consumption

during the peak load hours shall not be applicable. However, for the Open Access consumers, for the power procured from outside the State during the peak load hours, the surcharge as per the peak demand hours shall be levied on the energy brought in under open access mechanism.

As per the information available in the Commission, the electronic meters presently installed for HT Consumers have the facility of recording consumption in different time segments. In case the same is not available the eligible consumer can install ABT meter at its own cost. In such cases, the requisite meter can be procured by the consumer and handed over to the Discom concerned for testing / sealing and installing. The Discom, in no case, shall delay the process beyond ten days from the day (inclusive) the meter is handed over by a consumer.

4.4.2 ToU / ToDTariff (Optional)

Given the fact that marginal cost pricing is considered to be 'optimal' and it sends appropriate signal to consumers as how to behave with regard to usage of electricity. As the intraday demand picks up, different fuels are introduced depending on intensity of demand and fuel costs i.e. beginning with the least (cheapest) expensive to comparatively more expensive sources in an increasing Order. It is evident from the intraday implemented schedule for Haryana that during peak hours power is scheduled mostly from gas based thermal power stations by the Discoms to meet the peak demand. Thus, the average fuel cost of power purchase as per the present Order is Rs. 2.43 / Kwh. As against this the weighted average fuel / variable cost of most expensive power that is schedule as the demand increases is about Rs. 2.89/kWh i.e. about 19% higher at the margin.

In addition to the above approximation, as per the tariff Order dated 29.05.2014 and clarification dated 5.09.2014, the HT consumers are paying Peak Load Exemption Charges (PLEC) of Rs. 1.0 / kVAh over and above the normal tariff if the consumption is within the permissible limit i.e. up to 50% of the CD and for any consumption beyond the permissible limit, the consumer is charges Rs. 1.50 / kVAh over and above the normal tariff. While in the case of energy drawn through Open Access the applicable rates are 0.50/KVAh in case energy drawn is in excess of 20% of the CD and Rs.

1.50/kVAh on the balance energy during peak load hours in a month beyond 50% of the CD.

The Commission has carefully weighed the above two options and given the simplicity in implementation as well as calculation of fuel cost at the margin as fixed cost is payable to the Generator by the Discoms regardless of the actual energy drawl / implemented schedule. Hence, by avoiding drawl form expensive sources only fuel cost is saved, the Commission has considered it appropriate to put in place the following dispensation as an option to the eligible consumers.

Charge		Time
Off-Peak (October to March)	15 % rebate on the normal energy charges as approved by the Commission.	From 10 P.M to 05.30 A.M
Peak (October to March)	19% premium over the energy charges determined by the Commission	From 06.30 P.M hours to up to 10.00 P.M
Normal demand Hours (October to March)	Normal Tariff	From 05.30 A.M to 06.30 P.M
Demand Charges	As determined by the Commission - shall be the same for all categories of consumers including ToU. PLEC shall continue to be applicable for Open Access Power.	

Since the Commission has introduced ToU tariff as an option, once electing to be charged at the Time of Use Tariff, the consumer / applicant opting for the same shall be charged for a period of not less than six months from the date the Discoms, on an application submitted by a consumer, allows the same. The Discoms shall in no case delay approval / consent beyond three working days from the date of receipt of application from a consumer.

All other charges except PLEC on power purchased from the Discoms during the ToU period shall be applicable for the electricity consumer opting for ToU Tariff. But during the non ToU period PLEC shall continue to be levied. Also PLEC shall continue to be levied for Open Access Power during ToU period as well as non-ToU period. Based on the response from the consumers and impact on the revenue of the Discoms, the Commission shall review the dispensation on ToU Tariff for the FY 2018-19.

The ToU compatible meter, as per specifications of the Discoms / CEA shall be procured by the Consumers opting for ToU Tariff. The Discoms shall

test, seal and install the same within ten days counted from the day a consumer hands over the meter to the Discoms.

The Discoms are directed to file data regarding the following:-

a) Category wise number of consumers opting for ToU Tariff and their connected load / contract demand.

b) Comparative statement of quantum of power drawn by such consumer during peak hours, off peak hours and normal demand hours pre and post ToU month wise for corresponding six months i.e. October, 2017 to March, 2017 and October, 2016 to March, 2017.

c) Revenue realised from such consumers during the corresponding six month periods.

d) Quantum of power drawn by such consumers under Open Access mechanism and average cost (Rs/kWh) thereto during the corresponding six month periods.

e) Details of power surrendered / under drawn / disposed off on short-term basis and the per unit revenue realised / UI received or paid by the Discoms during the said period.

4.5 Agriculture Pump Set Supply (AP Supply)

For the A.P. consumers, the tariff, in the FY 2016-17 was determined equal to the CoS of L.T. Supply. In line with the previous Order of the Commission the AP tariff determined by the Commission for the FY 2017-18 shall be as under:-

Table 4.1: AP Tariff Determined by the Commission (FY 2017-18)

A.P. Metered /unmetered	Rs. 7.25/ kWh

As the State Government has been traditionally providing subsidised supply to the AP consumers, the concessional tariff for AP consumers' category for the FY 2017-18 taking into account the subsidy as estimated by the Commission and payable by the State Government, shall continue at the exiting rates.

As a consequence of retaining the existing subsidised tariff for supply of power to AP consumers, the subsidy payable by the State Government calculated as the difference between the revenue at approved tariff i.e. Rs. 7.25 /kWh which is equivalent

to the CoS of L.T. Supply for the FY 2017-18 and the subsidy for the FY 2017-18 shall be as per table below. The same shall be borne by the State Government as subsidy support to the AP consumers and shall be payable to Discoms in accordance with Section 65 of the Electricity Act, 2003 i.e. in advance. **The Calculation of Subsidy to be paid by the State Government for the FY 2017-18 as earlier stated is as per table 4.2.**

Table 4.2 : Calculation for AP subsidy (FY 2017-18)

	Subsidy calculation for AP supply	**unit**	**value**
1	Total units supplied to AP	MU	9193
2	Cost/ Tariff per unit	Rs/kWh	7.25
3	Estimated cost of service	Rs. Crores	6664.93
4	Revenue at subsidized tariff	Rs. Crores	114.07
5	Subsidy required to keep the tariff at current levels = 3-4	Rs. Crores	6550.86
6	Arrears of RE Subsidy for FY 2015-16	Rs. Crore	847.26
8	**Total A.P. Subsidy payable for FY 2017-18**	**Rs. Crores**	**7398.12**

In the event the State Government does not release the subsidy in accordance with Section 65 of the Electricity Act, 2003 then the Discoms shall demand and collect from the AP consumers tariff as decided by the Commission in this order i.e. equivalent to CoS for AP consumers in FY 2017-18 i.e. Rs.7.25 / kWh converted in to Rs/BHP per month in the case of unmetered supply. **The Discoms are directed to take up the issue of any unpaid subsidy vis-a-vis that determined by the Commission in its tariff Order or FSA Order under intimation to the Commission**.

The Commission reiterates that due to delay in payment of subsidy committed by the State Government as well as poor collection efficiency of revenue billed at the subsidized tariff, the burden in the form of interest on additional working capital requirement is passed on to the other consumers. Hence, the Commission decides that the Discoms shall enforce all the measures including disconnection of AP consumers in case of non payment of bills on the same lines as is done in the case of other consumers. However, if for any policy reasons, the Discoms fail to do so then the cost of such additional working capital shall be borne by the State Government.

Chapter 5

WHEELING CHARGES AND CROSS-SUBSIDY SURCHARGE

5.1 Wheeling Charges for the FY 2017-18

Segregated accounts including voltage wise assets and losses for the distribution and retail supply business are a pre –requisite for determination of wheeling charges and cross-subsidy surcharge. The Commission observes that the network establishment and operation cost as distinct from retail supply business including the power purchase cost is about 9.32% of the net ARR of the Discoms. Accordingly, the same has been considered by the Commission for working out the wheeling tariff for the FY 2017-18 as under:-

Table 5.1: Appoved Wheeling Charges for the FY 2017-18

1 Network expenses (per kWh)		
a.	Network establishment and operation cost [9.32% of the net ARR (Rs. 248652.7 Million)]of the distribution licensees for the FY 2017-18)	2317.44
b.	Allowed gross volume of power purchase by the Discoms at State Periphery (MUs) excluding inter-state sales and losses.	46403.78
c.	Expenses (Rs / kWh) (a/b)	0.50
2. Cost of losses in the system		
a	Approved Energy available for sale to Discoms (MU)	45262.25
b	Distribution system losses (technical) %	8.40%
c	Losses (MU) (2a X 2b))	3802.20
d	Bulk supply power purchase rate for the Discoms (Rs. / kWh)	4.13
e	Total cost of losses (2dx2c) Rs. million	15703.09
f	Cost per unit of losses (Rs. /unit) (2e/1b)	0.34
3. Wheeling Charges (Rs. / kWh) (1c+2f) rounded off		0.84

Accordingly, the wheeling charges payable by the open access consumers, except for the Solar and Wind energy procured from the State of Haryana (which shall be exempted), work out to Rs. 0.84/kWh.

5.2 Cross-Subsidy Surcharge (CSS)

The MYT Regulations, 2012 (regulation 63) provides that the cross-subsidy surcharge shall be payable by all intra-State open access consumers except those persons who have established captive generating station and are availing open access for carrying the electricity to a destination for their own use. Cross-subsidy surcharge

shall also be payable by such Open Access consumer who receives supply of electricity from a person other than the distribution licensee in whose area of supply he is located, irrespective of whether he avails such supply through transmission/distribution network of the licensee or not. The consumers located in the area of supply of a distribution licensee but availing Open Access exclusively on inter-State transmission system shall also pay the cross subsidy surcharge as determined by the Commission.

Section 42 of the Electricity Act, 2003 provides that the surcharge and the cross-subsidies shall be progressively reduced. The Commission has worked out CSS in line with the formula provided in the National Tariff Policy, 2016. The National Tariff Policy dated 28.01.2016 provides as under:-

> *"SERCs may calculate the cost of supply of electricity by the distribution licensee to consumers of the applicable class as aggregate of (a) per unit weighted average cost of power purchase including meeting the Renewable Purchase Obligation; (b) transmission and distribution losses applicable to the relevant voltage level and commercial losses allowed by the SERC; (c) transmission, distribution and wheeling charges up to the relevant voltage level; and (d) per unit cost of carrying regulatory assets, if applicable".*

The above is subject to the proviso that the surcharge shall not exceed 20% of the tariff applicable to the category of the consumers seeking open access.

The Commission has considered the methodology prescribed by the National Tariff Policy dated 28.01.2016, while working out cross-subsidy surcharge in the present Order. The relevant provision of the NTP is reproduced below:-

> *" Surcharge formula:*
>
> *S= T – [C/ (1-L/100) + D+ R]*
>
> *Where*
>
> *S is the surcharge*
>
> *T is the tariff payable by the relevant category of consumers, including reflecting the Renewable Purchase Obligation.*
>
> *C is the per unit weighted average cost of power purchase by the Licensee, including meeting the Renewable Purchase Obligation.*

D is the aggregate of transmission, distribution and wheeling charge applicable to the relevant voltage level.

L is the aggregate of transmission, distribution and commercial losses, expressed as a percentage applicable to the relevant voltage level.

R is the per unit ***cost of carrying regulatory assets (emphasis added)****.*

Above formula may not work for all distribution licensees, particularly for those having power deficit (emphasis added)*, the State Regulatory Commissions, while keeping the overall objectives of the Electricity Act in view, may review and vary the same taking into consideration the different circumstances prevailing in the area of distribution licensee.*

Provided that the ***surcharge shall not exceed 20% (emphasis added)*** *of the tariff applicable to the category of the consumers seeking open access.*

Provided further that the Appropriate Commission, in consultation with the Appropriate Government, shall ***exempt levy of cross subsidy charge on the Railways****, as defined in Indian Railways Act, 1989 being a deemed licensee, on electricity purchased for its own consumption.*

8.5.2 No surcharge would be required to be paid in terms of sub-section (2) of Section 42 of the Act on the electricity being sold by the generating companies with consent of the competent government under Section 43(A)(1)(c) of the Electricity Act, 1948 (now repealed) and on the electricity being supplied by the distribution licensee on the authorisation by the State Government under Section 27 of the Indian Electricity Act, 1910 (now repealed), till the current validity of such consent or authorisation.

8.5.3 The surcharge may be collected either by the distribution licensee, the transmission licensee, the STU or the CTU, depending on whose facilities are used by the consumer for availing electricity supplies. In all cases the amounts collected from a particular consumer should be given to the distribution licensee in whose area the consumer is located. In case of two licensees supplying in the same area, the licensee from whom the consumer was availing supply shall be paid the amounts collected".

The Commission has carefully examined the formula for working out cross-subsidy surcharge and observes as under:-

The voltage wise technical losses filed by the Discoms and that estimated by the Commission for working out voltage wise CoS is as under:-

Table No. 5.2 – Voltage level losses

Voltage Levels	Discoms Estimates	
	*UHBVNL (%)	# DHBVNL (%)
33 kV line losses	0.40	0.45

Voltage Levels	Discoms Estimates	
	*UHBVNL (%)	# DHBVNL (%)
33 kV Transformation Losses	0.23	0.20
11 kV line losses	6.95	8.40
11 kV Transformation Losses	0.96	0.93
LT Line Losses	5.62	4.70
Total Losses upto LT Level	13.57	14.68

* Memo No. Ch-02/SE/RA/N/F-211 dated 5.04.2017
# memo No. Ch-49/SE/RA-560 dated 03.04.2017

The Commission observes that above voltage level losses calculated by the Discoms and that of the Commission are marginally different to that estimated by the Discoms in the FY 2016-17 and accepted by the Commission for working out voltage wise CoS. As against 13.22 % (UHBVN) total losses upto LT Level now estimated is 13.57% and the same in the case of DHBVN has been now estimated at 14.68% as against 14.45% estimated in the previous year. The Commission, for the purpose of estimating voltage wise CoS has considered the voltage wise losses as estimated by the Discoms for the FY 2017-18.

Based on the voltage-wise loss calculations based on the data submitted by the Discoms, it is possible to work out the total losses up to 11 kV level and overall losses at LT levels. However, working out losses at different HT voltage levels i.e. 66 kV, 132 kV, 220 kV etc. is not possible till such time similar data is made available at these voltages by the Utilities. Hence, for calculating voltage wise losses, the Commission has broadly considered only two categories i.e. HT (11 kV level and above) and LT voltage levels. In line with the National Tariff Policy, the Commission has calculated the voltage wise CoS and Cross Subsidy Surcharge.

Based on the voltage wise technical loss calculations submitted by the Discoms, the technical losses ,for UHBVNL and DHBVNL combined, work out to 14.22% at LT voltage level as against 13.93% estimated in the previous year and upstream system and at 8.40% (rounded off) at HT (11 kV and above) voltage level and upstream system as against 8.15% estimated for the previous year. The difference between technical losses so determined and actual total distribution system losses are considered to be on account of reasons other than technical losses and are therefore taken as commercial losses. The commercial losses so determined have been apportioned between HT and LT voltage levels in proportion to annual gross energy sales at these voltage levels. The annual gross energy sales at the given voltage levels has been

taken as the sum of energy consumption of all consumer categories connected at that voltage plus the technical distribution losses corresponding to that voltage level as worked out in the voltage wise loss calculations as per the details provided in the table below:-

Calculation of Voltage wise losses for the FY 2017-18

		UHBVNL	DHBVNL	Total
1a	HT sales	4830.80	6003.53	10834.33
1b	LT sales	10639.93	15099.15	25739.08
1	Total Sales	15470.73	21102.68	36573.41
2	Losses %			
2a	HT	7.58	9.05	
2b	LT	13.57	14.68	
3	Loss units			
3a	HT	396.21	597.38	993.59
3b	LT	1670.53	2597.93	4268.46
4	Sales grossed up by Technical losses (1+3)			
4a	HT	5227.01	6600.91	11827.92
4b	LT	12310.46	17697.08	30007.54
5	Combined Technical losses			
5a	HT			8.40%
5b.	LT			14.22%
5	Total			12.58%
6	Total Distribution Losses	4075.36	4613.48	8688.84
7	Total Commercial losses (6-3)	2008.62	1418.16	3426.79
8	Commercial losses allocated to HT and LT based on grossed up units (4)			
8a	HT	598.67	385.27	983.93
8b	LT	1409.96	1032.90	2442.86
9	Total Voltage level distribution losses (3+8)			
9a	HT	994.87	982.65	1977.52
9b	LT	3080.49	3630.83	6711.32
10	Combined Technical and Commercial losses at Distribution level			
10a	HT			15.44%
10b	LT			20.68%
10	Total			19.20%
11	Sent out Units after accounting for Technical and commercial losses			
11a	HT	5825.67	6986.18	12811.85
11b	LT	13720.42	18729.98	32450.40
	Total	19546.09	25716.16	45262.25
12	Transmission Losses			
	Inter State	226.46	297.95	524.42
	Intra State	492.96	648.57	1141.53
	Total Transmission Losses	719.43	946.52	1665.95
13	Transmission Losses allocated to HT and LT based on grossed up Units (4)			
	HT	214.42	257.14	471.56
	LT	505	689.39	1194.39
14	Total Losses (Transmission and Distribution)			

		UHBVNL	DHBVNL	Total
	HT	1209.30	1239.79	2449.08
	LT	3585.49	4320.22	7905.71
	Total	4794.79	5560	10354.79
	Total Units Purchased + transmission losses			
	HT	6040.10	7243.32	13283.41
	LT	14225.42	19419.37	33644.79
	Total	20265.52	26662.68	46928.20
16	Voltage wise total Loss (%)			
	HT	20.02%	17.12%	18.44%
	LT	25.20%	22.25%	23.50%
	Total	23.66%	20.85%	22.07%

Accordingly, based on the voltage level distribution losses as worked out above, the calculations for CSS as per National Tariff Policy formula for the FY 2017-18 are as under:-

Table No. 5.3 – Calculations of CSS

	Cost of Service as per National Tariff Policy	
	Elements of cost of service	
1	Per Unit Weighted average cost of power per unit at State periphery	413
2	Aggregate of transmission, distribution and wheeling charges applicable to the relevant voltage level	
	Intrastate Transmission cost at consumers end (Paise/kWh) (Transmission and SLDC cost/ sales)	46
	Distribution (net of power purchase cost) and Wheeling cost at consumers end (5094 X 10/36573.4) (Paise/kWh)	139
3	Aggregate of transmission distribution and commercial losses applicable to the relevant voltage level	
	HT	18.44%
	LT	23.50%
	Cost of Service	
	C/(1-L/100)+D+R	
	HT (Paise / kWh)	691
	LT (Paise/kWh)	725

The above loss allocation is reflected in the energy allocators at HT and LT voltage levels i.e. lower cost attributed to the HT consumers and higher cost attributed to the LT Consumers. Thus, the Cost of Service in the case of HT Consumers is comparatively lower than that of the consumers receiving electricity supply at LT voltage. The CSS has been worked out as the difference between the average consumer category-wise average revenue realisation per unit and the voltage-wise CoS

of HT or LT as the case may be. The Cross-subsidy surcharge for the FY 2017-18 as per the NTP formula shall be as per the table that follows:-

Table 5.4: Cross-subsidy surcharge for FY 2017-18 (Rs/kWh)

		CoS (Rs./kWh)	Average revenue realization (Rs./kWh)	Cross Subsidy Surcharge (Rs./kWh)	Limited to 20% of Tariff
		1	2	3= 2-1	
1	HT industry	6.91	8.54	1.63	1.63
2	Bulk Supply (other than DS)	6.91	7.10	0.19	0.19
3	Railways (Traction)	6.91	7.49	0.58	0.58
4	LT Industry	7.25	7.91	0.66	0.66
5	NDS (HT)	6.91	8.64	1.73	1.73

The applicable CSS worked out above is within 20% (+/-) limit in accordance with the National Tariff Policy.

HERC

Chapter 6

Additional Surcharge

6.1 Summary of the petition

In compliance to HERC Order dated 14.12.2016 against Case No. HERC/PRO-14 of 2016 wherein the Commission has advised DISCOMs to take timely action for submission of supporting data/details for next six months and host the same on its website, UHBVNL has vide memo no. Ch-02/GM/RA/N/F-15/Vol-IX dated 24.01.2017 (filing no. 21 of 2017), filed the data on behalf of both the DISCOMs, relating to Additional Surcharge for the period from April 2016 to September 2016 providing the station wise / source wise details, regarding quantum of stranded power as well as costs thereto.

UHBVNL submitted the methodology adopted for computation of Additional Surcharge, on the basis of 100% data of all days in the first half of the FY 2016-17 i.e. April, 2016 to September 2016, as under:-

a) In order to ensure that only such surrendered power is taken for calculating Additional Surcharge, corresponding to stranded power as a result of power drawn by the consumers under Open Access mechanism, the lower of the quantum of Open Access power per slot and surrendered power for corresponding slot has been taken as quantum of stranded power.

b) The DISCOMs have calculated slot wise stranded power and also the Open Access Power availed in that particular time slot. Thereafter, the DISCOMs have calculated total units in MUs, corresponding to the stranded power as above.

c) and total Open Access units (MUs) availed during the first half of the FY 2016-17.

d) Accordingly, Additional Surcharge for first half of FY 2016-17 (in Rs. Crores) is calculated over the Units of Power (in MUs) evaluated as above for the first half of FY 2016-17 considering the per unit effective fixed charges as calculated below:-

Source	Estimated Quantum in MU	Annual Fixed Charges Rs. Mn.
Singrauli STPS	1,482.38	729.52
Rihand I	450.37	347.06
Rihand II	437.50	365.05
Rihand III	398.90	500.73

Unchhahar I	39.11	57.18
Unchhahar II	86.29	138.09
Unchhahar III	47.49	111.75
Anta CCPP	60.34	120.13
Auraiya CCPP	98.03	146.41
Dadri CCPP	99.70	157.47
Faridabad CCPP	770.00	1,937.26
Farakka STPS	86.91	14.95
Kahalgaon I	108.71	159.50
Kahalgaon II	331.07	551.64
Kol Dam	141.47	435.34
Salal I	425.28	303.38
Bairasiul	191.32	227.88
Tanakpur	25.09	38.54
Chamera I	330.36	340.20
Chamera II	71.63	134.81
Chamera-III	80.08	241.28
Dhauliganga	54.72	100.07
Dulhasti	102.93	367.79
Uri	131.03	142.90
Uri-II	53.39	127.01
Sewa II	26.41	83.04
Parbati-III	58.84	165.94
SJVNL	286.40	484.32
Rampur HEP	270.63	148.08
Tehri (THDC)	205.25	649.62
Koteshwar HEP	49.18	98.10
HPGCL	17,252.66	17,938.35
DVC Mejia-B	491.45	1,121.46
Koderma DVC	329.38	584.88
CGPL, Mundra	2,503.22	2,409.53
Sasan UMPP	3,278.25	508.52
PTC GMR	1,692.00	1,326.61
IGSTPP, Jhajjar	1,116.12	8,105.17
MGSTPS,CLP,Jhajjar	4,803.43	8,384.27
Total	**38,467.32**	**49,803.83**
Average Fixed Charge in Rs per Unit		**1.29**

e) It has been submitted that the per unit Additional Surcharge applicable on the Open Access consumers (Rs./unit) has been calculated considering the total Open Access Units estimated for first half of FY 2016-17 and the Additional Surcharge (in Rs. Crores) determined by dividing the total Additional Surcharge with the estimated Open Access Units for first half of FY 2016-17 (considering same open access scenario as in first half of FY 2016-17) in

MUs. The details of the backing down owing to Open Access in MW and MUs for calculation of Additional Surcharge and Open Access availed is given in the table below:-

Months	Average Quantum to be considered for Additional Surcharge in MW	Total Quantum to be considered for Additional Surcharge in MU	Average Quantum of Open Access in MW	Total Quantum of Open Access in MU
Apr-16	252.77	181.99	294.05	211.71
May-16	256.81	191.06	297.52	221.36
Jun-16	238.45	171.69	309.32	222.71
Jul-16	290.96	216.48	341.07	253.75
Aug-16	59.23	44.07	82.41	61.32
Sep-16	302.56	217.85	333.31	239.98
Grand Total	**232.95**	**1,023.13**	**275.69**	**1,210.83**

f) UHBVNL, has further submitted the total additional surcharge of Rs. 1.09/unit may be allowed to be levied upon open access consumers, which has been calculated based on details of slot wise surrendered power and slot wise open access power considering data of all days of first half of FY 2016-17, as detailed below:

Total Units of Power in MUs to be considered for Additional Surcharge	in MU	1,023.13
Effective Approved Fixed Cost considered for the purpose of Evaluating Additional Surcharge	Rs/ Unit	1.29
Total Additional Surcharge for the FY 2015-16 IN Rs. Crores	In Rs Crore	1,319.84
Open Access Units estimated for FY 2016-17 (considering same open access scenario as in FY 2015-16) in Mus	in MU	1,210.83
Per Unit Additional Surcharge applicable on the same Quantum of Open Access (Rs./unit)	Rs/ Unit	1.09
Total Units of Power in MUs to be considered for Additional Surcharge	in MU	1,023.13

6.2 Public Hearing

In Order to afford an opportunity of presenting their views in the matter, the Commission held a public hearing on 16.03.2017 along with APR/ ARR/Tariff petitions of UHBVNL. As the Interveners present in the hearing mostly reiterated their submissions already dealt in the Commission's Order dated 01.08.2016 &, for the sake of brevity the same is not being reproduced here.

6.3 Commission's Analysis & Order

i) The Commission, while passing the Order dated 14.12.2016 (Case No. HERC/PRO-14 of 2016), had determined the Additional Surcharge of Rs.

0.87/kWh. Further, the DISCOMs were advised to take timely action for submission of supporting data / details for the next six months and also host the same on its website. The said Order also provided that the Additional Surcharge shall continue to be effective till the same is revised / amended by the Commission.

ii) Accordingly, the DISCOMs have filed the requisite data, which has been examined as under:-

a) That the Petitioner has worked out backing down quantum day-wise, slot-wise for the corresponding six months of FY 2016-17, from the implemented schedule and the entitlements as per their last revision, for the particular day, as available on the NRLDC/SLDC websites (www.nrldc.org.in and www.haryanasldc.org.in).

b) That due to the change in the declared capacity of the inter-State generator during the day, the change in entitlement of the State from that particular Generator, is automatically accounted for.

c) The above process adopted by the Petitioner for calculating the backing down quantum of power has been checked on sample basis and found to match with the data supplied. It has been further observed that the generating units which are not on bar due to less demand have not been considered and only the running units backing down has been considered for arriving at the stranded cost of power for determination of additional surcharge.

d) While calculating effective approved fixed cost per unit, for the purpose of evaluation of additional surcharge, DISCOMs have considered only that much quantum of purchase, which has fixed cost against them. Thus, DISCOMs have taken net purchase quantum as 38467.32 MUs i.e. total purchase quantum approved by the Commission for the FY 2016-17 – 53958.17 MUs minus purchase quantum not having fixed cost – 15490.85 MUs. Whereas, the Commission while approving additional surcharge to be levied w.e.f. 01.08.2016, has considered total purchase quantum irrespective of whether it has the fixed cost or not.

e) The Commission, while approving Additional Surcharge, has considered fixed cost approved for the FY 2017-18 i.e. Rs. 8047.30 Crore minus PGCIL transmission charges of Rs. 1401.62 Crore and divided the same by approved volume from all approved sources. Accordingly, the Additional Surcharge had been determined as per the details below:-

Months	MW	MU	OA (MW)	OA (MU)
	A= Lower of Open Access and Backing down	B= A converted into MU	C= Open Access	D= C converted into MU
Apr-16	252.75	181.98	294.05	211.72
May-16	256.90	191.13	297.41	221.27
Jun-16	238.43	171.67	309.32	222.71
Jul-16	290.88	216.41	341.08	253.76
Aug-16	424.00	315.46	594.97	442.66
Sep-16	302.56	217.84	333.31	239.98
Total	1,765.52	1,294.50	2,170.14	1,592.10
Monthly Average	294.25	215.75	361.69	265.35
Quantum considered for Addl. Surcharge (lower of the power backed down/surrendered and open access power)			MU	215.75
Per Unit Fixed Cost of Power Purchase for the FY 2017-18			Rs/kWh	1.2149
Avg. Additional Surcharge for the FY 2017-18			Rs. Millions	262.12
Monthly Open Access Power			MU	265.351
Additional Surcharge (rounded off)			Rs/kWh	0.99

The Additional Surcharge of Rs. 0.99/kWh shall be applicable to the consumers of Uttar Haryana Bijli Vitran Nigam (UHBVN) and Dakshin Haryana Bijli Vitran Nigam (DHBVN) (form the date of this Order) who avail power under the Open Access mechanism in terms of Haryana Electricity Regulatory Commission (Terms and Conditions for Grant of Connectivity and Open Access for Intra-State Transmission and Distribution System) Regulations, 2012, from any source other than the distribution licensees.

Chapter 7

DIRECTIVES

The Commission has reviewed all the directives issued to the Discoms in its orders issued in the past and observes that some of the directions issued are yet to be implemented by the Discoms. The Commission reiterates that all the directives issued by it are to bring in operational efficiency and facilitate financial turn-around of the Discoms as well as enhance consumers' satisfaction. On the issue of reigning the feeder line losses and replacement of dead / defective consumer meters, the Commission had given time bound targets and subjected non-compliance of the same to penal action as well. The Commission observes, as also pointed out by the stakeholders in the public hearings that the Discoms have not complied with the directives**. Hence, the Commission gives 45 days time to the Distribution Licensees to submit status report bringing out the measures/efforts taken/made to meet the targets and detailed reason for non-compliance, if any.**

1. While examining several pending issues with both the DISCOMs, the Commission is of the opinion that Smart Metering can resolve several of these issues. Hence the Commission hereby directs the DISCOMs to implement Smart Metering along with AMI as envisaged under the National Tariff Policy, 2016. This would ensure avoidance of human interface in meter reading and would enable generation of relevant data / information which can be in turn efficiently utilised for system strengthening, theft detection, resolution of billing disputes, system planning, best utilisation of resources, implementation of DSM schemes etc. leading to increased consumer satisfaction.

   Accordingly, the Licensees are directed to plan their requirement of smart meters which can be configured for both pre and post paid functions so that time lines envisaged under NTP 2016 for roll out of smart meters across mentioned categories can be met.

   Discoms are further directed to finalize the specifications of smart meters in line with functional requirement of advance metering infrastructure (AMI) formulated by CEA and the same along with the list of approved vendors be provided on its website to facilitate consumers to purchase the meter if required. The necessary infrastructure for providing the smart meters in certain category of consumers

such as telecom towers, street lighting, bulk supply and temporary connection be also created to plug the revenue leakages due to reading billing disputes.

2. The DISCOMs shall immediately formulate Smart Grid Roadmap and submit along with tentative cost estimates to the Commission at the time of submitting their next ARR, or earlier. For preparation of the Smart Grid Roadmap, the services of the Indian Smart Grid Forum may be engaged, if required.

3. In view of rapid technological changes and the implementation of various technologies / schemes such as RAPDRP, smart metering and smart grid technologies, the training needs of DISCOM's staff as well as requisite upgradation of their skills be assessed and a Training Programme /calendar be prepared accordingly within 3 months. Further, the infrastructure so created by the Power Utilities such as HPTI at Panchkula may be upgraded if required to meet the training requirements of the utilities and a penal of experts on the subjects from related organizations be prepared and the services of such experts may be utilized.

4. The Commission observes that DISCOMs have hired multiple agencies for issuing bills wherein lack of uniformity has been observed. The centralized billing system with the KYC details based on Aadhar No., Mobile No. and E-mail etc. of the consumer base would definitely eliminate above problem and provide the better results. Discoms are directed to work towards centralised billing system for consumers and submit a compliance report to the Commission within three months.

5. During the public hearing, it was observed by the Commission that various Government Departments are not able to clear the pending electricity dues of the DISCOMs for want of requisite budget provision. DISCOMs are directed to take up the matter with the State Government to clear pending dues and update the Commission on the progress made.

6. In order to promote the Roof Top Solar PV installations and meeting the RPO by the Discoms as well as the mandate given vide certain policies of the State Government, a Public awareness campaign may be launched by the Discoms / HAREDA through local TV and newspapers giving various benefits of having a roof top Solar PV Plant under Net Metering arrangement by the consumer.

Further, to better understand the difficulties/bottlenecks in this respect and the consumer's expectation for any other facility, the feedback from the public may also be obtained.

7. With a view to improve the service to the consumers and its business operations in its area of supply, the Discoms may explore the appointment of the Gram Panchayats as retail supply Franchisee in line with the provisions under section 13 of the Electricity Act 2003 whereby the Commission may allow such arrangements on the recommendations of the Government. In such cases the energy to such Panchayat Institutions may be made available by the Discoms at a single point (rebate as per Single Point Supply Regulations shall be applicable) at the bulk supply rate (cost of power at the Discoms periphery). Additionally, Panchayat shall be permitted to install solar system under net metering on the buildings/land and shall be allowed the banking of power as well as the incentive allowed for solar generation at par of that allowed to the DS consumers.

8. The DISCOMs are directed to analyse the consumption pattern of the DS & NDS consumers for past three years and analyse the cases warranting load enhancement. Notice be issued to such consumers for voluntary load enhancement in a set time frame and may allow the security deposit in instalments. In case consumers fails to avail the opportunity extended to such consumers, the Discoms shall suo-moto extend the load and in such case consumers shall pay security deposit. The above action be completed within six months and the Commission be apprised accordingly.

9. It may be ensured that the interest on consumer securities is given to the consumers in the next billing cycle if not paid earlier. Further, DISCOMs are directed to submit details of unclaimed Security Deposit of the consumers, where the consumer has discontinued receiving supply from DISCOMs and the action on such unclaimed securities be also taken as per accounting procedure within six months.

10. The Commission observes that it had approved 'Tatkal' scheme for release of A.P. Tube-well connections as proposed by the Discoms. The objective was to facilitate instant release of such connections by charging a pre-determined premium. It is, however, noticed that a large number of applications are in the

pendency list defeating the very purpose of a "Tatkal Scheme". It is directed that a status note on implementation of Tatkal Scheme may be submitted within 30 days of receipt of this Order.

11. In compliance of the Commission's Regulation on Guidelines for establishment of Forum for Redressal of Grievances of the Consumers, Electricity Ombudsman and Consumer Advocacy) Regulations, 2016, the vacant posts of Chairman and Members of CGRF should be filled within a period of two months and office of the CGRF at Panchkula and Hisar be strengthened with adequate manpower and facilities.

12. .As already directed in the previous orders on the ARR, the posts lying vacant for more than two years (the period of two years preceding 15.02.2016), whether newly created or old, should not be filled up without prior approval of the Commission. However, this shall not be applicable to the posts for which requisition has already been sent to the recruiting agency and for which advertisements have been issued by them. The Commission in its Order dated 29th` May, 2014 had given directions regarding abolition of non-technical post lying vacant for more than three years. Discoms have not reported the compliance of the orders dated 29th May, 2014, dated 7th May, 2015 and also 15thOctober, 2015. The status report be submitted within 45 days failing which the expenditure on the above such posts shall not be considered in the ARR of Discoms.

13. In order to promote digital payments, the Commission directs the discoms that the transaction charges (MDR) for payment through payment gateway on the website of the discoms by way of credit card, debit card, net banking and also the transaction charges for payment through POS machines at the discoms counters and e-wallets etc. shall be borne by the discoms.

    The consumers of urban areas under Municipal Corporations/Municipal Committee shall pay their bills for amount of Rs. 10000/- and above through above mode of payment including RTGS/NEFT and the banks authorized by the discoms.

14. The consumers of all categories with load 10 KW and above may download their bills from discoms website. Further, in order to provide environmental

consciousness among the consumer, suitable facility for exercising option of "No hard copy of Bills" be made available on the website of the discoms. The consumers may give option to stop issue of paper bill to them. The consumers shall be provided bills through SMS alerts and/ or e-mail without any charge.

15. The Commission vide its order dated 01.08.2016, had directed the Discoms to issue a request to the A.P Consumers, whose annual income, other than Agriculture, is in excess of Rs. 20 lakhs, to voluntarily give-up the subsidy on electricity consumed at their tube-well so as to reduce the RE subsidy payable by the State Government which has reached un-sustainable levels largely because of the annual increase in the number of tub e-well connections. However, not much success had been reported in this matter. The Discoms were advised to give wide publicity on a campaign basis through electricity bill/SMS/e-mails. The discoms are directed to continue this campaign and also the peruse with State Government in this regard. The Commission may also be apprise of the outcome of such drive.

16. In view of heavy expenditure on the establishment the four power utilities incurred and also the shortage of technical staff to maintain the system and over staffed clerical and non-technical establishment needing re-structuring, the Commission in its order dated 1st August, 2016 had directed the discoms to examine the issue and take action for re-structuring. The status in this regard be updated and the matter may also be taken up with the State Government.

17. All other directives contained in the various chapters of the present Order shall be complied with by the Discoms within the time line specified for the purpose and all sales circulars/commercial circulars be issued by both the Distribution Licensees uniformly and in consonance with each other.

18. If DISCOMS are unable to reduce their line losses/financial losses etc., then in the alternative they may adopt measures such as providing franchises to different companies so that the situation could be handled in a proper manner in public interest.

19. The issue of double supply to some consumers has come to the notice of the Commission. The Discoms are directed to submit circle wise details of such consumers along with justification, if any.

20. The Discoms, in line with the HERC DSM Regulations, are directed to identify DSM programmes / plan and submit the same for consideration of the Commission.

The Tariff and charges for Distribution & Retail Supply of electricity in Haryana by the distribution licensees i.e. UHBVNL & DHBVNL as well as CSS and Additional Surcharge as determined in the present Order shall be applicable from 01.07.2017 and shall remain effective until these are revised / amended by the Commission.

This order is signed, dated and issued by the Haryana Electricity Regulatory Commission on 11.07.2017.

Date: 11.07. 2017	**(Debasish Majumdar)**	**(M.S. Puri)**	**(Jagjeet Singh)**
Place: Panchkula	**Member**	**Member**	**Chairman**

HERC

Appellate Tribunal for Electricity
(Appellate Jurisdiction)

Appeal nos. 126 & 159 of 2012

Dated: 4th September, 2013

Present:Hon'ble Mr. Justice M. Karpaga Vinayagam, Chairperson
Hon'ble Mr. Rakesh Nath, Technical Member

Appeal No. 126 of 2012

In the matter of:
Abhijeet Ferrotech Limited,
Plot No. 50 & 51, APSEZ, Achuthapuram,
Visakhapatnam,
Andhra Pradesh-531011 **... Appellant (s)**

Versus

1. **Andhra Pradesh Electricity Regulatory Commission,**
   Singareni Bhavan, Red Hills,
   Lakdikapul, Hyderabad.
   Andhra Pradesh-500 004.

2. **Eastern Power Distribution Company of Andhra Pradesh Ltd.,**
   P&T Colony,
   Seethammadhara,
   Visakhapatnam-530 013

3. **Northern Power Distribution Company of Andhra Pradesh Ltd.,**
   1-1- 503, NIT Main Road,
   Chaitanyapuri Colony, Hanmakonda,
   Warangal-506004

4. **Southern Power Distribution Company of Andhra Pradesh Ltd.,**
   Beside Srinivasa Kalyana Mandapam,
   Kesavayanagunta Road,
   Tirupati-517501

5. **Central Power Distribution Company of Andhra Pradesh Ltd.,**
   6-1-50, Corporate Office, Mint Compound,
   Hyderabad-500 063 **...Respondent(s)**

Counsel for the Appellant (s): **Mr. Kunal Kaul**
Ms. Smriti Mishra

Counsel for the Respondent(s): **Mr. P. Shiva Rao for R-2 to 5**

Appeal No. 159 of 2012

In the matter of:
Andhra Pradesh Ferro Alloys
Producers Association,
No. 308, Nirmal Towers,
Dwarakapuri Colony,
Panjagutta,
Hyderabad-500 082 **... Appellant (s)**

Versus

1. **Andhra Pradesh Electricity Regulatory Commission,**
   Singareni Bhavan, Red Hills,
   Lakdikapul, Hyderabad.
   Andhra Pradesh-500 004.

2. **Central Power Distribution Company of Andhra Pradesh Ltd.,**
   APCPDCL Corporate Office,
   6-1-50, Mint Compound,
   Hyderabad-500 063
   (Represented by its Managing Director)

3. **Eastern Power Distribution Company of Andhra Pradesh Ltd.,**
   APEPDCL, Beside Nakkavanipalem Sub-Station,
   Near Gurudwara,
   Visakhapatnam-530 013

4. **Northern Power Distribution Company of Andhra Pradesh Ltd.,**
   H. No. 1-1-478, 503 & 504,
   Chaitanyapuri, Hanamkonda,
   Warangal-506004

5. **Southern Power Distribution Company of Andhra Pradesh Ltd.,**
   #19-13-65/A, Srinivasapuram,
   Tirupati-517501
   (Represented by its Managing Director) **...Respondent(s)**

Counsel for the Appellant (s): **Mr. Shridhar Prabhu**
Mr. Lokesh R. Yadav

Counsel for the Respondent(s): **Mr. P. Shiva Rao for R-2 to 5**

Judgment

Mr. Rakesh Nath, Technical Member

These Appeals have been filed by Andhra Pradesh Ferro Alloys Producers Association and Abhijeet Ferro Tech. Ltd. against the order dated 30.3.2012 passed by the Andhra Pradesh Electricity Regulatory Commission determining the Annual Revenue Requirement ("ARR") and Tariff for the four Distribution Licensees of the Andhra Pradesh for the FY 2012-13.

2. The Appellant in Appeal no. 159 of 2012 is an Association of Ferro Alloys Industry in the State of Andhra Pradesh. The Appellant in Appeal no. 126 of 2012 is an Industrial consumer with Ferro Alloy unit taking power supply at 220 kV. The State

Commission is the Respondent no. 1. The Respondent nos. 2 to 5 are the Distribution Licensees.

3. The brief facts of the case are as under:

(a) The State Commission issued Regulation 4 of 2005 on 14.11.2005 specifying the terms and conditions for determination of tariff for Wheeling and Retail Sale of Electricity. In the Tariff Regulations, the State Commission introduced Multi Year Tariff framework.

(b) The Distribution licensees (R-2 to R-5) expressed their inability to make a filing for retail supply business for a period of five years from 2009-10 to 2013-14 as per the MYT scheme and sought the approval of the State Commission to file ARR and Tariff on annual basis from the years 2009-10 to

2011-12 and the same was permitted by the State Commission.

(c) The Distribution licensees again expressed difficulties in filing ARR for the 2nd Control Period i.e. FY 2012-13 and 2013-14 together and sought the permission of the State Commission to allow them to file the ARR and tariff proposal for FY 2012-13 only and the same was permitted by the State Commission vide its letter dated 18.10.2011. `

(d) Accordingly, the Respondents 2 to 5 filed the ARR and Tariff Petition for FY 2012-13. Thereafter, after the issuance of public notice, the State Commission held public hearings. The Appellants participated in the public hearing and made submissions before the State Commission.

(e) Finally on 30.3.2012, the impugned order determining the ARR and Tariff of the Distribution licensees (R-2 to R-5) for FY 2012-13 was passed by the State Commission.

(f) Aggrieved by certain findings of the State Commission in the impugned order the Appellants have filed these Appeals.

4. As the impugned order is the same and some common issues have been raised by the Appellants, a common judgment is being rendered in both the Appeals.

5. Ferro Alloys Producers Association, the Appellant in Appeal no. 159 of 2012 has raised the following issues:

i) **Violation of MYT principles:** The tariff filing of the Respondent Licensees before the State Commission was not maintainable on the ground that MYT regime contemplated in the Act, National Tariff Policy and the Regulations framed by the State Commission could not be violated by the State Commission itself. The State Commission could not have allowed the annual filing of the ARR without giving an opportunity of hearing to the Appellant. According to the MYT framework, the annual performance review has to be filed by the Distribution Licensees. This was not done. Truing up for FY 2010-11 was also not done.

ii) Non-production of audited accounts: The audited accounts were never made part of the

tariff filing. The audited accounts should have been made available to the stakeholders for their comments to make the tariff determination exercise transparent and meaningful. The Appellant filed objections in this regard but the same were not considered.

iii) **Violation of the Regulations:** The conduct of business Regulations, 2000 mandates submission of expected cost of providing charges which is nothing but the cost of service contemplated under the Electricity Act, 2003 and the National Tariff Policy. Admittedly, this was not submitted. The Distribution Licensees have also not segregated the distribution and retail supply business in their tariff filings as per the Regulations. The Licensees have also not

submitted any proposals for sharing of gains and losses.

iv) **Losses:** The losses incurred by the Distribution licensees have gone up beyond the levels allowed by the State Commission. The State Commission should have penalized the Distribution licensees instead of increasing the tariff disproportionately.

v) **Power Purchase Cost anomalies:** The State Commission allowed procurement of a quantity of 13281.36 Million Units at a whopping cost of Rs. 5535.93 crores. The Distribution licensees have also not shown how they have adhered to the approved Power Procurement Plan.

vi) **Tariff shock inflicted upon 33 kV and 11 consumers:** The difference in tariff between

the 33 kV users and 132 kV users should be the difference in transmission losses and charges, if any. However, there is no nexus between the hike in the tariff and the proportionate transmission charges and losses. The increase in tariff of Ferro Alloy Units at 11 kV, 33 kV and 132 kV compared to the previous year has been 69%, 53% and 38% respectively. Even assuming that the difference between the tariffs across the voltage categories is justifiable and inevitable, the proportion of the tariff shock inflicted upon the tariff categories is not commensurate with the loss levels across the voltage levels.

vii) **Failure to determine the tariff for 220 kV users:** The State Commission has erred in

not determining a separate tariff for consumers availing power supply at 220kV. Such consumers are a different class. The cost of supply at 220kV is lower than that of 132kV and 33kV users and, therefore, a separate tariff should have been determined for the consumers taking supply at 220kV.

viii) **Cost of service for Ferro Alloy Industry not considered:** The determination of cost of service for Ferro Alloys industry's category is missing. Therefore, the tariff determination for Ferro Alloys Industry is bad in law.

ix) **Unjustified increase in uncontrollable cost:** The State Commission has passed on even the controllable expenditure in the tariff order. The State Commission allowed the Power purchase cost which has been

considered as uncontrollable cost without any verification or prudent check. The power purchase cost as a percentage of total ARR has increased from 79% in the previous year to 81.5%.

6. The Appellant in Appeal no. 126 of 2012 has raised the issue of separate tariff for consumers availing power supply at 220kV level giving different methods for determining the cost of supply at 220kV and quoting tariff orders of various State Commission where separate tariff was specified for the consumers at 220kV.

7. The Distribution Licensees, the Respondent have filed replies and written submissions supporting the impugned order. We shall be elaborating the submissions of the Distribution Licensees while

considering the various issues in the following paragraphs.

8. We have heard the learned counsel for the Appellants and the Respondent Licensees. On the basis of the rival contentions raised by the parties, the following questions would arise for our consideration:

i) Whether the tariff order is illegal due to violation of the MYT principles laid down in the Regulations?

ii) Whether the impugned order is illegal on account of not making the audited accounts for the previous year as part of the tariff filing?

iii) Whether the State Commission has violated the Regulations by not insisting on submission of cost of service and segregated

accounts of the licensee for distribution and retail supply business and by not deciding sharing of gain and losses on account of performance of the licensee and not truing up the accounts, making the impugned order illegal?

iv) Whether the State Commission has erred in not penalizing the distribution licensee on account of having higher distribution losses than that allowed by the State Commission?

v) Whether the State Commission has erred in determining the power purchase cost?

vi) Whether the State Commission has erred in giving a disproportionate tariff increase to the consumers at 11kV and 33kV?

vii) Whether the State Commission has failed to determine separate tariff for consumers

availing power supply at the voltage of 220kV?

viii) Whether the State Commission has erred in not determining the cost of service for Ferro Alloys Industry's category?

ix) Whether the State Commission has given an unjustified increase in uncontrollable costs?

9. The first issue is regarding legality of the order on account of violation of the MYT principles.

10. According to the Appellant, the State Commission could not have allowed the annual filing of ARR/ tariff petition, that too without the annual performance review and truing up petition.

11. Learned counsel for the Respondent Distribution Licensees argued that they have been following the MYT scheme for their distribution business for the 2nd

Control period i.e. 2009-10 to 2013-14 as per clause-6 of the Regulation 4 of 2005. According to the Regulation, while the ARR filing for the distribution shall be for the entire control period, for retail supply business the ARR could be on annual basis. They also could not file the ARR for retail supply business for the entire control period due to significant uncertainty prevalent on the availability of energy and the cost of power purchase for the second Control period. There was uncertainty in commissioning dates of the APGENCO Stations, central generating stations, UMPPs and other generating stations. The order on generation tariffs based on the generation regulation was not passed by the State Commission. The State Commission had been giving permission for filing ARR for retail supply business on annual basis. The permission for FY 2012-13 was given by the State

Commission by its order dated 18.10.2011, in terms of its conduct of business regulations. Further, the true up filings for the first Control Period had been submitted to the State Commission and was under consideration of the State Commission.

12. We find from the impugned tariff order that the Appellant Association had raised the issue regarding MYT filing and true up. The contention of the Appellant was that the Distribution Licensees had sought permission for annual tariff filing for FY 2009-10 and 2010-11 which was granted and the same permission could not be extended to the FY 2012-13 and the licensee could not have filed the petition without seeking leave of the State Commission.

13. The State Commission has dealt with the issue in the impugned order as under:

> *"Commission's View:*
> *As regards filing the ARR and Retail Supply Tariff Proposals for FY 2012-13 separately, the licensees have applied for the same and obtained the permission of the APERC, vide Commission letter NO. APERC/Secy/DD(EAS)/ARR for RSB FY 2012-13, dated 18.10.2011. As regards the objection regarding true-up of earlier year, as a pre-requisite for filing of ARR and Retail Supply Tariff Proposals for FY 2012-13, it has to be noted that the ARR for Retail Supply Tariff Proposals for FY 2012-13 have to be filed four months in advance of the commencement of FY 2012-13 i.e., by 30.11.2011,and by this date, it is not possible to have true-up of FY 2011-12, since four months out of the FY 2011-12 would still be remaining uncompleted as on this date. The true-up exercise is a separate exercise in terms of Regulation 4 of 2005 and will be undertaken by the Commission separately. As regards the other objections*

regarding the filings, it is important to note that the Electricity Supply Act, 1948 stands superseded by the Electricity Act, 2003 and the filings of the Licensees are in pursuance of the provisions of the Electricity Act, 2003 and the relevant Regulation of the Commission, namely, "Terms and Conditions for Determination of Tariff for Wheeling and Retail Sale of Electricity Regulation, 2005". The replies given by the licensees are found to be reasonable and satisfactory".

14. The impugned order also indicates the reason given by the Respondent Licensees to the State Commission for filing Retail Supply Tariff proposal on annual basis.

15. The Tariff Regulation no. 4 of 2005 provides for determination of Annual Revenue Requirement for Distribution Business and Retail Supply Business. As per Regulation 6, the Distribution licensee has to file application for ARR for each of its licensed business

for each year of the Control Period. The ARR filing for Distribution business has to be for the entire Control Period and for Retail Supply business the ARR filing has to be on annual basis for the first Control Period and the entire Control Period for the subsequent Control Periods.

16. The State Commission had determined the ARR for the Distribution Business for the MYT Period from FY 2009-10 to FY 2013-14 separately vide its order dated 20.3.2009. The same approved costs for Distribution Business have been considered in the Retail Supply tariff for the FY 2012-13 in the impugned order. However, for Retail Supply Business, the Distribution Licensees indicated difficulties in submitting ARR for MYT Period due to uncertainties in power purchase costs due to various reasons. The State Commission considered the same and allowed

the Distribution licensee to file ARR for Retail Supply Business on Annual basis in exercise of its power under the Regulations. As such, we do not find any infirmity in the State Commission allowing the licensees to file Retail Supply Business ARR on annual basis.

17. Admittedly, as per the Regulations, the State Commission has powers to allow the filing of ARR/tariff proposal for retail supply business on annual basis and the State Commission has exercised its power after considering the reasons given by the Distribution Licensees and passed reasoned order granting the permission which is perfectly legal.

18. The objection of the Appellant Association before the State Commission was that the Licensees should have obtained approval of the State Commission for

annual filing. Now it is being argued before us that the State Commission should have first sought objections from the stakeholders before granting the approval for exempting the Licensees from MYT filing of ARR/Tariff.

19. We do not agree with the contention of the Appellant that the State Commission has to first seek objections from the stakeholders before exercising its power to exempt as exercised in this case. No such public consultation is required as per the Regulations or as per the provisions of the Electricity Act, 2003. However, the State Commission has considered the objections of the Appellant in this regard and have given a reasoned order.

20. As regards truing up for FY 2010-11, we find that the Licensees requested the State Commission to

consider and approve truing up proposals for FY 2010-11 for which audited accounts had already been furnished by them to the State Commission. However, the State Commission decided to carry out truing up in a separate proceeding in terms of Regulation 4 of 2005. Thus, we cannot hold the impugned order invalid only because the State Commission had decided to carry out the truing up for the previous year in a separate proceeding.

21. In view of above, we hold in regard to the issue of the legality of order for not following the MYT principles as against the Appellant.

22. The second issue is regarding the non-filing of the audited accounts.

23. According to the Appellant, the audited accounts for the previous year was not filed and therefore, the order could not be held valid.

24. According to the Respondent Licensees, by the time of ARR filing which is 120 days prior to the 1st April of the succeeding year, the audited accounts for the ensuing year are not available. However, as and when the audited accounts are received, the same are submitted to the State Commission. At the time of filing of ARR for FY 2012-13, the audited accounts for 2010-11 had already been filed. In the Regulation 4 also there is no stipulation of audited accounts to be filed with the petition for ARR/Tariff.

25. Let us now examine the finding of the State Commission on the issue of true up for the previous

year raised by the Appellant Association. The relevant extracts are as under:

> *"As regards the objection regarding true-up of earlier year, as a pre-requisite for filing of ARR and Retail Supply Tariff Proposals for FY 2012-13, it has to be noted that the ARR for Retail Supply Tariff Proposals for FY 2012-13 have to be filed four months in advance of the commencement of FY 2012-13 i.e., by 30.11.2011,and by this date, it is not possible to have true-up of FY 2011-12, since four months out of the FY 2011-12 would still be remaining uncompleted as on this date. The true-up exercise is a separate exercise in terms of Regulation 4 of 2005 and will be undertaken by the Commission separately".*

26. Thus, the State Commission decided that the true up exercise for FY 2011-12 would be taken up separately in terms of Regulation 4 of 2005.

27. At the time of filing of the Petition for ARR/Tariff for 2012-13, the audited accounts for FY 2010-11 had already been furnished by the Licensees to the State Commission. The Distribution licensees requested the State Commission to true up the financials for 2010-11. However, the State Commission decided to take up the true up separately.

28. We notice from the tariff petitions filed by the Appellants before the State Commission that the licensees have indicated the actual expenses for FY 2010-11 and estimated expenses for FY 2011-12 vis-à-vis that approved by the State Commission in the respective tariff orders. However, the State Commission decided to true up the expenses in a separate proceedings. Therefore, the audited accounts for FY 2010-11 and projected expenses for FY 2011-12 vis-a-vis the expenses approved in the respective Tariff

order were available to the State Commission. Thus, we feel that on this ground the impugned order cannot be held as illegal. However, the State Commission is directed to make available the audited accounts to stakeholder in the public hearing for true up of the accounts for FYs 2010-11 and 2011-12.

29. Thus, the second issue is also decided against the Appellants.

30. The third issue is regarding violation of the Regulations by the State Commission regarding segregation of accounts of the Distribution Licensees into distribution and retail supply business, sharing of gains and losses and truing up of accounts.

31. We find that the State Commission had determined the charges for Distribution business for the MYT period 2009-10 and 2013-14 earlier by its

order dated 20.3.2009 and the same costs have been considered in the impugned order. The State Commission has determined the retail supply ARR for the FY-2012-13 in the impugned order. Thus, the expenses for Distribution Business and Retail supply businesses have been decided separately by the State Commission.

32. Regarding truing up of accounts and sharing of gains and losses, as already indicated above, the Distribution Licensee had submitted the audited accounts for FY-2010-11 and had requested for truing up. However, the State Commission decided to carry out truing up in a separate proceeding by using its discretion as per the Regulations. Thus, we feel that it cannot be held that the impugned order is illegal on this account. Thus, the said issue is also decided against the Appellant.

33. Even though the Tariff Regulations do not clearly indicate that the Annual Performance Review for the current year and true up for the previous year have to be carried out along with the determination of ARR/tariff for the ensuing year, we feel that the APR for the current year based on available data for six months and true up for the previous year based on the audited accounts should be done in the tariff order so that the adjustment of the surplus/shortfall in revenue as a result of APR/True up is made while determining the ARR and tariff for the ensuing year. It would also help in realistic assessment on the ARR for the ensuing year. Thus, the State Commission may consider to review of its Tariff Regulations keeping in view the above directions.

34. The fourth issue is regarding penalizing the Distribution Licensees for higher distribution losses.

35. According to the Appellants, the distribution losses of the Licensees have exceeded the benchmark decided by the State Commission and, therefore, the distribution licensees should have been penalized.

36. According to the Respondents Distribution Licensees, the power purchase requirement has been computed with normative loss levels which were approved by the State Commission for FY 2012-13 and not the actual loss level proposed by the licensees. Thus, no prejudice has been caused to the Appellants on account of the Distribution Licensees not achieving the normative losses.

37. Let us examine the Power Purchase requirement decided by the State Commission in the impugned order. The relevant extract is reproduced below:

> *"38. In their filings, the Licensees have applied transmission and distribution losses (as percentage) different from the losses approved by the Commission as part of Multi Year Tariff Regulatory Framework for FY 2012-13. Taking into account the T & D losses percentage already fixed in the MYT order (as amended) for the year 2012-13, the Commission has computed the power purchase requirement at 90402.36 MU. The power purchase quantities as per filings and present determination for FY 2012-13 are given in Table-11.*

Table 11: Power Purchase Quantity (MU) (Million kWh)

Power Purchase Quantity	**Licensee**				**All Licensees**
	CPDCL	**EPDCL**	**NPDCL**	**SPDCL**	
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
Filed by Licensees	**42558.07**	**15507.25**	**14011.37**	**21836.71**	**93913.40**
Approved by APERC	**40832.39**	**15164.57**	**12721.82**	**21683.58**	**90402.36"**

38. Thus, the State Commission has considered the losses approved by it in the MYT Tariff Regulatory

Framework for FY 2012-13 and not the actual losses or the losses proposed by the Respondent Licensees. Accordingly, the State Commission has reduced the power purchased quantity from that proposed by the Distribution Licensees. Thus, the Distribution Licensees will be penalized in terms of power purchase cost if they do not achieve the normative losses during the FY 2012-13.

39. Thus, we do not find any merit in the contentions urged by the Appellants regarding distribution losses.

40. The fifth issue is regarding power purchase cost.

41. According to the Appellants, the State Commission has allowed a very high cost of power purchase and the licensees have not shown how they have adhered to the approved power purchase cost.

42. The Respondents Distribution Licensees have submitted that the State Commission has computed the quantum of power procurement on the basis of projected sales and normative losses. The power purchase cost is then determined on the basis of tariffs contemplated in the existing PPAs and market price of electricity.

43. We find that the quantity of power purchase has been determined by the State Commission considering the projected sales of the Distribution Licensees and the normative losses. Thereafter, the State Commission has decided the power purchase cost after detailed analysis after considering the objections of the stakeholders' received during the public hearing. The State Commission has considered the availability from various sources along with the respective tariffs.

Thus, the State Commission has decided the power purchase cost after detailed analysis and discussions.

44. The Appellants have not indicated any infirmity in the computation of the power purchase cost but have only stated that the power purchase cost is high. They have also stated that Distribution Licensees have not shown how they have adhered to the approved power purchase plan. We feel that the actual power purchase cost will be scrutinized by the State Commission only in the true up of the accounts. The Appellants can raise their objections during the true up proceedings if they find any infirmity in the actual power purchase cost incurred by the Distribution Licensee.

45. Thus, we do not find any merit in the contention of the Appellants regarding power purchase cost.

46. The sixth issue is tariff shock to 33 kV and 11 kV consumers commensurate with the loss levels across the voltage levels.

47. According to the Appellants there is no nexus between the hike in tariff and the proportionate transmission charges and losses at 11kV, 33 kV and 132 kV.

48. According to the Respondent Distribution Licensees, the variation in tariff at different voltages of Ferro Alloy Producers is almost similar to variation in tariffs at different voltages for other category consumers. The hike in tariff is due to unavoidable steep increase in cost of service which is again due to increase in power purchase cost and the cost of network. The difference between tariffs of other consumers at 33 kV and 132 kV may not be equal to

the difference in losses between the said two voltage levels as the tariff at a particular voltage level not only depends on the losses at that level, but also on cost of network and its maintenance.

49. We find that the Respondent Distribution Licensees in their petition before the State Commission had proposed to merge Ferro Alloy Units with HT- I (A) Industrial, General Category. However, the State Commission decided to retain the Ferro Alloys Industry as a separate category under HT-I (B) keeping in view the higher power usage by the Ferro Alloys Units. The State Commission also did not levy any Maximum Demand Charges on Ferro Alloys Industry even though the Distribution Licensees had proposed the Maximum Demand Charges to Ferro Alloys Industry as applicable to other industrial consumers. The State Commission for the first time determined the

voltage-wise tariff for 11kV, 33 kV and 132 kV in the impugned order.

50. In the tariff order for financial year 2011-12, the State Commission had decided same tariff of Rs.2.65 per kWh for Ferro Alloy Units irrespective of voltage of supply. However, in the impugned tariff order for financial year 2012-13, the State Commission has evolved voltage-wise tariff for 11kV, 33kV and 132kV and above in respect of Ferro Alloys Industry. This step by the State Commission is in accordance to the Section 62 (3) of the Electricity Act which provide that the State Commission may differentiate in tariffs according to *inter alia*, voltage of supply.

51. We also find that in the financial year 2011-12, the average cost of supply was Rs.3.69 per kWh

whereas the tariff for Ferro Alloy Industry at 11kV, 33 kV, 132 kV and above was only Rs.2.65 per kWh i.e. (-) 28% of the average cost of supply. The Tariff Policy envisages tariff of all categories of consumers to be within ± 20% of the average cost of supply. Thus, the tariff of the Ferro Alloy Units was much less than the lower end variation from average cost of supply. In other words, the Ferro Alloys Industry was a subsidized category as its tariff was much less than that stipulated in the Tariff Policy.

52. In the impugned order the tariffs of the Ferro Alloy Units have been raised. The reason indicated by the State Commission in the impugned order for modification in tariff is as under:-

> *"Limited the proposed hike by Licensees for 132kV and above at par with HT I (A) consumers and then evolved voltage wise tariff for 33 kV and 11kV*

supply to ensure that the tariff aligns with the cost and limit cross subsidization".

53. Let us first examine if the tariffs of the Ferro Alloys Industry at different voltage levels are within ± 20% of the average cost of supply as per the Tariff Policy.

54. The average cost of supply for FY 2012-13 is Rs.4.41 per kWh and the tariff for Ferro Alloys Industry at 11kV, 33 kV, 132 kV & above is Rs.4.48/kWh, Rs.4.05 kWh and Rs.3.65/ kWh respectively. Thus, the tariffs for Ferro Alloys Industry at 11kV, 33 kV, 132 kV is (-)1%, (-)8% and (-)17% of the average cost of supply. This is well within ± 20% of average cost of supply as stipulated in the Tariff Policy to be achieved by FY 2010-11.

55. The cost of service determined by the State Commission for HT Category I Industry General for 11 kV, 33kV and 132/220 kV for all the Distribution Licensees is Rs. 4.46/kWh, Rs. 3.56/kWh and Rs. 3.31/kWh respectively. Thus, the tariff of Ferro Alloys Industry at 132/220 kV is about 10% above the cost of service at 132/220 kV, for 33 kV it is about 13% above the cost of service and at 11 kV about 2% below the cost of service.

56. We find no force in the contention of the Appellants regarding disproportionate tariff for Ferro Alloy Units at 11 kV and 33 kV compared to Ferro Alloy Units at 132/220 kV. The State Commission has taken the step in right direction to align the tariff of Ferro Alloy Units to voltage of supply and correctly differentiating the tariffs at different voltages of supply. The tariffs of all the categories of Ferro Alloy Units is in

the range of (-) 1 to (-) 17% of the average cost of supply thus providing a favourable tariff for Ferro Alloys Industry as compared to other HT industrial units taking power at similar voltage levels. Thus, the State Commission has been fair to the Appellants.

57. We do not find any force in the contention of the Appellants that the variation in tariffs of Ferro Alloy Units at different voltage levels should be strictly in proportion to the loss levels at the respective voltage levels. As rightly pointed out by the Distribution licensee, the cost of supply is dependent on network cost besides loss level. We, therefore, reject the contention of the Appellants in this regard.

58. The seventh issue is regarding determination of separate tariff for Ferro Alloy Units taking power at 220kV.

59. According to the Appellants, the cost of supply at 220 kV is lower than that of 132 kV and 33 kV users and, therefore, a separate tariff should have been determined for the consumers taking power at 220 kV.

60. According to the Respondent Distribution Licensees, the distribution network at 11 kV and 33 kV is operated in radial mode, whereas the EHT network at 132 kV, 220 kV and 400 kV is operated in ring mode or interconnected mode resulting in loop flows. The power flow path in the transmission system cannot be distinctly differentiated at different voltage levels. The power can flow from lower to higher voltage or higher to lower voltage in ring system depending on the physics of the system. Hence EHT system losses can only be determined and voltage wise losses cannot be determined separately. Therefore, the State

Commission considered the system losses for the entire EHT system since it is operated in integrated manner and hence only one tariff has been fixed by consumers connected to EHT system irrespective of their availing supply at 132kV or 220kV. On the other hand, losses at different levels of 11 kV or 33kV operating in radial mode is determined separately. Moreover, the cost of infrastructure for supply to consumers at 220 kV is higher than at 132 kV level.

61. We find that the State Commission in the impugned order has determined cost of service for different industrial consumer categories at 11 kV, 33 kV and 132/220 kV. While the cost of service has been determined separately for 11 kV and 33 kV for 132 kV and 220 kV it has been clubbed and a common cost of service has been indicated.

Accordingly, the respective tariffs have been determined for 11 kV, 33 kV and 132/220 kV. The objection of the Appellants is regarding clubbing 132 kV and 220 kV and not determining separate tariffs for 132 kV and 220 kV levels.

62. M/s. Abhijeet Ferrotech Ltd. in their comments before the State Commission had raised objection regarding non-determination of tariff at 220 kV. On this objection, the State Commission has made the following observations in the impugned order:

> *"The 220 kV system is integrated with 400 kV system and operated in the ring. The system losses are measured for the entire EHT system i.e. 400 kV, 220 kV and 132 kV. Hence, the Commission is not envisaging a separate tariff for 220 kV system".*

63. We find that the State Commission while determining the cost of service at different voltage

levels has taken the respective losses and transmission charges for the integrated intra-state transmission system and integrated inter-state transmission system. Thus, the charges and losses for intra-state transmission has been determined on postage stamp basis. As stated by the Respondents, the EHT system is operating in integrated manner and segregating the losses for 220 kV would be difficult. We feel that the State Commission has determined the cost to serve at different voltage levels at LT, 11 kV, 33 kV and combined cost for 132/220 kV. The State Commission did not segregate the losses for 220 kV due to integrated operation of the EHT system and complications in determination of segregated losses. Further, the tariff for Ferro Alloys Units at 220/132 kV has been kept lower much than the average cost of supply i.e. about 17% lower than the average cost of

supply. Thus, we find that the State Commission has adopted a reasonable approach in determining the tariff of Ferro Alloy Units availing supply at 220 kV/132 kV.

64. If the State Commission has decided to include the combined transmission charges and losses for the integrated intra-state transmission system and for the inter-State transmission system of POWERGRID in the cost of supply of consumers at all voltage levels including the 220 kV level, we cannot hold that this approach is illegal. The EHT transmission system is owned and operated by the transmission licensees whose transmission charges and losses are determined for the integrated system and not for supply at different voltage levels viz. 220 kV or 400kV. If the State Commission has not segregated the transmission

charges and losses for loading to cost of supply of consumers at 220 kV and 132kV, we cannot say that this is arbitrary or illegal.

65. Section 62(3) of the Electricity Act, 2003 permits differentiation in tariffs due to various specified factors including voltage of supply. The State Commission has already differentiated the tariffs on the basis of voltage of supply at 11 kV, 33 kV and 132/220 kV. If the State Commission has clubbed the EHT consumers at 132/220 kV, due to complexities in segregation of tariff and in view of a common charges and losses for the integrated intra-State and inter-State transmission system it could not be considered wrong. This issue is also decided against the Appellants.

66. The eighth issue is regarding cost of service to Ferro Alloys Industry Category.

67. According to the Appellants, the State Commission should have determined cost of service to Ferro Alloys Industry's category.

68. We find that the State Commission has determined cost of service for HT Industry including Ferro Alloys Units separately for 11 kV, 33 kV and 132/220 kV. Even though the Distribution licensees had proposed same tariff for HT Industry and Ferro Alloys Industry, the State Commission decided the tariff of Ferro Alloys Industry at lower rates compared to other HT industry. As already indicated above the tariff of Ferro Alloys Industry at 11 kV, 33 kV and 220/132 kV is lower than the average cost of supply and within ±20% as per the Tariff Policy. The cost of service for HT category Industry including the Ferro Alloys Industry has been considered by the State

Commission while determining the tariff for Ferro Alloys Industry at different voltage levels.

69. The voltage-wise tariff for HT category-1 (A) Industry and Ferro Alloys Industry vis-à-vis the cost of service for HT category-I Industry including Ferro Alloy Industry and average cost of supply as determined by the State Commission is as under:

	Cost of service for HT category-I Industry Rs./kWh	Average cost of supply Rs./kWh	HT Category-1 (A) Industry		Ferro Alloys Industry HT-1(B) Rs./kWh
			KVA charges Rs./KVA	Energy charges Rs./kWh	
11 kV	4.46	4.41	250	4.80	4.38
33 kV	3.56	4.41	250	4.37	4.05
220/132 kV	3.31	4.41	250	3.97	3.65

Thus, the voltage wise tariff of Ferro Alloys Industry is much lower than the tariff for HT Category- 1(A) Industry. Further, the Ferro Alloys Industry has not been levied any KVA charge, which is

levied on HT-1(A) Industry. Thus, the tariff for Ferro Alloys Industry has been more favourable as compared to other HT Industry.

70. Voltage-wise cost to serve is an indicative figure taking into account various factors including loss in different voltage networks. Voltage-wise cost to serve is also one of the factors for determination of tariff. It is not the intent of the Act that the tariff has to the mirror image of the cost to serve. Also tariffs for different categories could not be determined by a mathematical formula. Thus, if the State Commission has determined the cost to serve at different voltage for Ferro Alloys Industry and other HT consumers we cannot say that the same is illegal.

71. The last issue is regarding increase in uncontrollable cost.

72. According to the Appellants, there is 30% hike in controllable costs and the Power Purchase cost also has been allowed without prudent check.

73. We find that the Appellants have made general statements about increase in controllable and power purchase cost without giving cost specific issues. As already indicated the State Commission has carried out all detailed analysis of the power purchase cost from various sources. The Appellant has not indicated any specific error in determination of power purchase cost. Similarly, on controllable costs, the Appellants have not indicated any specific cost about which they are aggrieved. Therefore, we do not find any force in the contention of the Appellants on this issue.

74. Summary of our findings:

(i) Violation of MYT principles:- The State Commission had determined the ARR for the Distribution Business of the Distribution Licensees for the Multi Year Tariff period from FY 2009-10 to 2013-14 separately vide its Order dated 20.03.2009. The same changes have been considered in the Retail Supply Tariff Order for FY 2012-13 in the impugned order. However, for Retail Supply Business, the Distribution Licensees indicated difficulties in submitting ARR for MYT period due to uncertainties in power purchase costs due to various reasons. The State Commission considered the same and allowed the

Distribution Licensees to file ARR for Retail Supply Business on annual basis in exercise of its powers under the Regulations. We do not find any infirmity in the State Commission allowing the filing of ARR for Retail Supply Business on annual basis after considering the reasons given by the Licensees. We do not agree with the contention of the Appellants that the State Commission has to first seek the objections from the stakeholders before exercising its power to exempt in this case.

(ii) <u>Non-production of audited accounts</u>:- We find that the Distribution Licensees had already filed the audited accounts for FY 2010-11 and in its petition, the

Distribution Licensee requested the State Commission to true-up the accounts for FY 2010-11. However, the State Commission decided to take up the true-up separately even though the audited expenditure for FY 2010-11 and projected expenses for FY 2011-12 was available with the State Commission. Thus, on this ground the impugned order cannot be held as illegal. However, we have directed the State Commission to make available the audited accounts to the stakeholders in the public hearing for the true-up of accounts for FYs 2010-11 and 2011-12.

(iii) <u>Segregation of accounts of licensees into distribution and retail supply business and truing-up of accounts:</u>- We do not find any

infirmity in the order on these accounts. However, we have given some directions to the State Commission to consider to review its Regulations as per the direction given in this judgment.

(iv) <u>Distribution Losses</u>:- The State Commission has determined power purchase requirement taking into account the losses on normative basis and not actual losses or the losses projected by the Distribution Licensee. Thus, the ARR and tariff has been decided on the basis of normative losses only and not actual losses. Therefore, no prejudice has been caused to the Appellants if the actual losses of the Appellants is higher than the normative loss allowed by the State

Commission, as the licensee has to bear the loss on this account.

(v) <u>Power Purchase Cost</u>:- We do not find any infirmity in the Order regarding power purchase cost.

(vi) <u>Disproportionate hike in tariff of 33/11kV consumers:</u>- We do not find any merits in the contentions of the Appellants.

(vii) <u>Separate tariff for 220 kV supply</u>:- We do not find any infirmity in determination of clubbing the tariff for 132/220 kV supply.

(viii) <u>Cost of Service to Ferro Alloys Industry:</u>- We do not find any infirmity in the order regarding determination of tariff for Ferro Alloys Industry.

(ix) <u>Unjustified increase in uncontrollable costs:-</u> We do not find any merits in the contentions of the Appellants in this regard.

75. In view of our above findings, the Appeals are dismissed as devoid of merits. However, there is no order as to costs.

76. Pronounced in the open court on this ***<u>4th day of September, 2013</u>***.

(Rakesh Nath)
Technical Member

(Justice M. Karpaga Vinayagam)
Chairperson

√
<u>REPORTABLE/~~NON-REPORTABLE~~</u>

vs

Before the Appellate Tribunal for Electricity
(Appellate Jurisdiction)

Appeal No. 179 of 2012

Dated: 31st May, 2013

Present: Hon'ble Mr. Justice M. Karpaga Vinayagam,Chairperson
Hon'ble Mr. Rakesh Nath, Technical Member

In the matter of:

Kerala High Tension and Extra High Tension
Industrial Electricity Consumer's Association
Productivity House,
Jawaharlal Nehru Road,
Kalamassery, KOCHI-683 104

...Appellant(s)

Versus

1. **The Kerala State Electricity Regulatory Commission**
   K.P.F.C Bhavanam,
   C.V. Raman Pillai Road,
   Vellayambalam,
   Thiruvananthapuram-695 010
   Kerala

2. **Kerala State Electricity Board,**
   Vydyuthi Bhavanam,
   Pattom, Thiruvananthapuram,
   Pin-695 004
   Kerala

...Respondent(s)

Counsel for Appellant(s) : Mr. Buddy A Ranganadhan
Ms. Richa Bhardawaja

Counsel for the Respondent(s): Mr. Ramesh Babu for R-1
Mr. M.T George for R-2
Mr. Sreenivasan and
Ms. Kavita K.T for R-2
Mr. Siva Prasad for KSEB

JUDGMENT

HON'BLE MR. JUSTICE M. KARPAGA VINAYAGAM, CHAIRPERSON

1. Kerala High Tension (HT) and Extra High Tension (EHT) Industrial Electricity Consumer's Association is the Appellant herein.

2. The present Appeal is directed against the tariff order passed by the Kerala State Commission dated 25.7.2012 wherein the State Commission determined the Retail Supply Tariff for the State of Kerala.

3. The short facts are as under:

a) The Appellant is the consumer's Association comprising of 166 nos. of

consumers including more than 29 major industries.

b) Out of the members of the Association of HT and EHT industries, about 31 industrial consumers have contracted for a maximum demand of more than 2000 KVA each with Kerala Electricity Board, the Second Respondent.

c) Out of them, more than 20 industries draw power at the EHT level from the State Electricity Board. They are the subsidizing category of consumers for the Electricity Board.

d) In the State of Kerala, High proportion of Hydel generation in the overall mix has been instrumental in keeping tariff revisions to the barest minimum.

e) The State Commission was constituted in November, 2002. In 2007, the State Commission after observing all the formalities, fixed the tariff for the Appellant's

category by the tariff order dated 26.11.2007. Subsequently, tariff was not revised by the State Commission till 2012.

f) The State Electricity Board (R2), on 31.12.2011 filed a Petition before the State Commission for the approval of ARR and ERC for the year 2012-13. In the ARR Petition, the State Commission by the order dated 28.3.2012 approved the Revenue Gap for the period 2012-13 at Rs.1889.15 Crores.

g) Thereupon, on 29.3.2012 the State Electricity Board filed a Tariff Petition for the revision of tariff for the year 2012-13 on the basis of a Revenue Gap of Rs.1586 Crores.

h) The Tariff Petition was admitted by the State Commission on 25.4.2012. As directed by the State Commission, the tariff proposal was published in newspapers on 10.5.2012.

i) In response to the publication, the Appellant's Association on 25.5.2012, filed its objections to the Draft Regulations published

by the State Commission in which the State Commission had proposed to notify a roadmap for reduction of Cross Subsidies in the State.

j) In the meantime, the Appellant filed a Review Petition before the State Commission against the ARR and ERC order that was passed by the State Commission on 28.3.2012.

k) The Appellant on 4.6.2012 filed its objections to the tariff proposal of the Board. The State Commission conducted public hearing in which the public including the Appellant participated on 4th to 8th June, 2012.

l) At that stage, the Appellant filed a Writ Petition before the Kerala High Court on 16.7.2012 praying the High Court to direct the State Commission not to revise the tariff without finalizing the roadmap for reduction of cross subsidy in the State.

m) The Writ Petition came-up for hearing on 25.7.2012. During the hearing, the learned Counsel appearing for the State Commission made a statement giving an undertaking that the State Commission would take into consideration Section 61 and 62 of the Electricity Act, 2003 and various policy documents reflecting the cost of electricity and progressive reduction of cross subsidy while finalizing the Tariff proceedings. This undertaking was recorded in the order passed by the High Court on 25.7.2012.

n) On the very same date i.e. on 25.7.2012, the State Commission issued the impugned tariff order increasing the tariff for HT and EHT consumers which varies between 26% and 58% stipulating that the revised tariff would come into effect from 1.7.2012 by giving the retrospective effect.

o) Aggrieved by this, the Appellant has presented this Appeal.

4. The Learned Counsel for the Appellant in this Appeal has raised the following issues:

a) Determination of tariff on the basis of category wise/voltage wise cost of supply and not on the basis of Average Cost of supply;

b) Increase in cross subsidy and tariff shock;

c) Increase in tariff violative of Regulation 5(3) of the Tariff Regulations, 2006;

d) No load factor incentive and prompt payment incentive given in the tariff order;

e) Retrospective fixation of tariff;

5. The gist of the submissions made by the learned Counsel for the Appellant on the each of the issues, is as follows:

a) The State Commission ought to have determined the tariff on the basis of voltage wise cost of supply instead of choosing to fix the tariff on the basis of average cost of

supply. This is contrary to the principles laid down by this Tribunal in various judgments.

b) Contrary to the mandate of the Act, the State Commission has increased cross subsidy for the HT and EHT consumers. The table shown in the impugned order indicates that there is an increase not only in the tariff but also there is increase in the cross subsidy which is contrary to the Act and tariff policy.

c) The impugned order is contrary to the judgment of this Tribunal which mandates that no category of consumers should be visited with a tariff shock which has been done in the impugned order while increasing the tariff between 26% and 58% in violation of Regulation,2006.

d) The State Commission having allowed the Power Factor incentive has disallowed other incentives such as load factor incentive, etc.

and prompt payment incentive without valid reasons.

e) The impugned order is wrong in law since it has been made effective retrospectively from the date even prior to the date of tariff order. The tariff order was passed on 25.7.2012, yet the impugned order has stipulated that the revised tariff would come into effect from 1.7.2012.

6. The learned Counsel for both the Respondents i.e. State Electricity Board as well as the State Commission while refuting the grounds urged by the learned Counsel for the Appellant have pointed out the findings of the State Commission in the impugned order on these issues and submitted that the impugned order is well justified which does not call for any interference.

7. In the light of the rival contentions urged by the learned Counsel for the parties, the **following question would arise for consideration.**

(a) Whether the State Commission failed to determine the tariff on the basis of the voltage wise cost of supply and instead determined the tariff on the basis of average cost of supply which is contrary to the law laid down by this Tribunal?

(b) Whether the impugned order is completely contrary to the judgment of this Tribunal to the effect that cross subsidy should not be increased and no category of consumers should be visited with the tariff shock?

(c) Whether the State Commission while increasing the tariff causing tariff shock has violated its own Regulations 5(3) of the Tariff Regulations, 2006 ?

(d) Whether the State Commission is right in disallowing the incentive such as load factor incentive and prompt payment incentive, etc even though it has allowed power factor incentive?

(e) Whether the Act or the Tariff Regulations would permit the State Commission for retrospective fixation of the tariff?

8. The first three issues are interconnected and, therefore, we shall be taking them up together.

9. Before examining the impugned order, let us discuss about the order dated 28.3.2012 by which the State Commission approved the ARR and ERC of the Electricity Board for the FY 2012-13 based on which the State Commission has determined the retail supply tariff in the impugned order.

10. The Electricity Board filed a petition for determination of ARR for FY 2012-13 on 31.12.2011 with a proposal for 15% power restrictions for the entire year so as to avoid purchase of costly power from liquid fuel based power stations. The Electricity Board also assumed that 50% of consumers will purchase extra energy over the quota at marginal cost and thereby assumed additional revenue of about Rs. 775.94 crores. With these assumptions the revenue gap was projected at about Rs. 3240 crores which was to be made good by increasing the tariff.

11. The State Commission after issuing public notice considered the objections and suggestions of the stakeholders on the ARR petition before passing the order. Some of the industrial consumers opposed imposition of power restrictions and suggested that the State Commission may adopt a general tariff increase

instead of imposing power restrictions. The State Commission accepted the view of the objectors and accordingly rejected the proposal of the Electricity Board for power cuts and directed the Board to procure additional power from liquid fuel based stations. The State Commission accordingly determined an ARR with a revenue gap of Rs. 1889 crores to be made up by increase in tariff. This revenue gap of Rs. 1889 crores was determined as against the revenue gap of Rs. 4337 crores projected by the Electricity Board without imposition of any power cuts and by procuring costly power from liquid fuel fired power stations. In this order, the State Commission determined the average cost of supply of Rs. 4.64 per unit and average revenue at existing tariff at Rs. 3.49 per kWh with a revenue gap of Rs. 1.15 per unit.

12. In the meantime, the Electricity Board filed a petition for determination of tariff. In the petition, the Board indicated following reasons for increase in revenue requirements:

i) Adverse change in hydro thermal mix resulting in increased requirement from thermal sources.

ii) Increased dependence on volatile short term market to meet power demand in the State.

iii) Increase in cost of generation of all thermal stations due to dependence on imported coal as well as phenomenal increase in price of crude oil adversely affecting the finances of the Board. Consequently, the average unit rate of thermal stations increased by Rs. 111.54% in 2012-13 compared to price in 2006-07.

iv) Upward revision of tariff norms for central generating stations by the Central Commission.

v) New regulations of Central Commission for sharing of inter-state transmission charges by the Central Commission.

vi) Inflationary trend in economy substantially impacting the expenses of the Board.

13. The Electricity Board also pointed out difficulties in managing resources even for its day to day operations. Further, the Board submitted that in the past, the Board had been able to meet the revenue requirements by availing overdraft from Financial Institutions but the Banks were reluctant to lend and were putting many restrictions while giving additional funds. Therefore, increase in tariff to reflect the average cost of supply was the only solution. The Board also referred to the directives of this Tribunal in

OP no. 1 of 2011 vide order dated 11.11.2011 to all State Commissions.

14. Let us now examine the objections and suggestions made by the Appellant regarding cross subsidy before the State Commission on the proposal of the Electricity Board regarding revision of tariff. The relevant portion is reproduced below:

> *"3.42 Section 61 of the Act mandates reduction of cross subsidies in a manner specified by the Hon'ble Commission. Admittedly, the Hon'ble Commission is yet to specify the roadmap for reduction of cross subsidies, although the process has now been initiated".*
>
> .....
>
> *"3.44. This delay is regrettable, as Section 8.3(2) of the National Tariff Policy states that a roadmap for cross subsidy reduction should be notified within six months of the NTP being notified and that by the end of FY 2010-11, tariffs were to be within ± 20% of the average cost of supply. The*

relevant portion of the NTP is quoted below for easy reference".

"Thus, the Tariff Policy envisages that the tariff should progressively reflect the efficient and prudent cost of supply of electricity and latest by 2010-11 the tariffs for all categories of consumers except the consumers below poverty line should be within ± 20% of the average cost of supply".

3.46 Therefore, the Hon'ble Commission should have taken steps to adjust tariffs in such a manner that cross subsidy was gradually reduced over the years since the notification of the NTP, and bring them within ± 20% of the average cost of supply for the year by the end of FY 2010-11.

"3.49 Therefore, in this tariff exercise for 2012-13, the Hon'ble Commission ***mandatorily*** *has to set tariffs in a manner that achieves* ***at least*** *the target that was to have been achieved in FY 2010-11".*

"3.50 There is also an important observation made by the Hon'ble ATE in Appeal no. 131 of 2005.

On consideration of the submissions of the learned counsel for the Appellant and Respondents, the provisions of the Electricity Act, 2003, the National Electricity and Tariff Policies, we are of the view that the ***cross-subsidies can only be gradually reduced and brought to the levels envisaged by the Act and Tariff Policy.***

3.51 Therefore, in setting tariffs in this exercise, the Hon'ble Commission has to ensure that under no circumstances is the cross subsidy level of a cross subsidizing consumer increased, ***when calculated with reference to the category-wise cost of supply".***

15. Thus, the Appellants requested the State Commission to set tariff for FY 2012-13 in a manner that achieves at least the target that was to have been achieved in FY 2010-11 as per the Tariff Policy i.e.

tariff should be within ± 20% of the average cost of supply and under no circumstances the cross subsidy of cross subsidizing consumer should be increased when calculated with reference to category wise cost of supply.

16. Let us now examine the impugned order dated 25.7.2012 of the State Commission which is the first comprehensive tariff order of the State Commission determining the Retail Supply Tariff in which tariff has been revised for the Appellants after a span of 10 years.

17. The State Commission has made the following observations in the impugned order regarding the issue of cross subsidy, cost of supply and tariff stock raised by the

EHT and HT consumers including the Appellant:

i) Para 8.3.2 of the Tariff Policy indicates that the State Commission which notify road map within six months with a target latest by 2010-11 end, the tariffs are within ± 20% of the average cost of supply.

ii) Para 5.5.2 of the National Electricity Policy states that tariff for consumers below poverty line who consume electricity below a specified level of 30 units per month, may have tariff at least 50 % of the average cost of supply.

iii) The Forum of Regulators in its meeting held on 29.7.2011 regarding "Model Tariff Guidelines" has decided that the State Commission would notify revised road map within six months with a target that the latest by 2015-16, the tariffs are within ± 20% of

the average cost of supply. Forum of Regulators is statutory body under the Act and its decisions and findings are to be taken as a guiding principle for taking decisions.

iv) The National Electricity Policy, Tariff Policy and Forum of Regulators' recommendations all state that all the tariff have to be within ± 20% of the average cost of supply.

v) The State Commission has also referred to various judgments of this Tribunal on the issue of cost of supply, cross subsidy, etc., where the approach of determining tariff within ± 20% of the average cost of supply has been upheld.

vi) The cardinal principles like recovery of reasonable costs of Discoms, avoiding tariff shocks to consumers, ensuring social justice to weaker strata of

society, limiting cross subsidy and direct subsidies to sustainable levels should be taken care of.

vii) There should be gradual reduction of cross subsidy so as to reach the benchmark level of ± 20% of the average cost of supply.

viii) The State Commission has already put the draft 'Regulation on principles for determination of Roadmap for cross subsidy reduction' in public domain which will be finalized after due process.

ix) The average cost of supply is Rs. 4.64 per unit. The approximate average cost of supply at transmission delivery point is Rs. 3.39 per unit. If the tariff of the EHT consumers is fixed based on voltage level cost, the average cost of balance consumers becomes approximately Rs. 4.79 per unit. The tariff of domestic consumers which is presently Rs. 1.99 per

unit will have to be increased to Rs. 4.79 per unit, i.e. 140% increase resulting in huge tariff shock to domestic consumers.

x) The State Commission has also observed the following with regard to the judgments of this Tribunal:

> *"37. As pointed out earlier in the various judgments of Hon. APTEL even though the ultimate aim is to go by the concept of cost plus basis of supply of electricity to various categories and classes of consumers, 'this cannot be achieved immediately in one go'. This can be accomplished 'stage by stage over a period of time by reducing the cross subsidies etc'. The Commission can endeavour only 'for a gradual transition from the tariff loaded with cross subsidies to a tariff reflective of cost of supply to various class and categories of consumers'. The tariff cannot 'be the mirror image of the cost of supply of electricity to a category of consumer' under the existing circumstances. Therefore the Commission believes that 'for the*

present, the approach adopted by the Commission in determining the average cost of supply will not be faulted'. (Quotes from APTEL orders)".

xi) Clause 19 of the Tariff Regulations, 2006 also empowers the State Commission to fix tariff which will reflect the average cost of supply.

xii) Under the prevailing circumstances and considering the various ground realities particular to the State, the Tariff shall be designed based on the Average Cost of supply. The absence of data on the embedded cost of supply voltage/consumer category wise is also one of the reasons for the Commission to decide the average cost of supply as the basis for determining the tariff for FY 2012-13.

18. In this way the State Commission gave detailed reasonings for determining the tariff based on average cost of supply during FY 2012-13.

19. Let us now examine the tariff of the Industrial consumers with respect to other major tariff categories of subsidized consumers determined by the State Commission in the impugned order. The position regarding pre-revised and revised average tariff, increase in tariff and tariff variation of approved tariff with respect of average cost of supply that emerges from table given under paragraph 101 of the impugned order is as under:

Tariff Category	Pre-revised tariff (average) Rs./kWh	Revised tariff (average) Rs./kWh	Percentage increase in tariff	Variation of approved tariff with regard to average cost of supply of Rs. 4.64/kWh
Subsidized categories				
LT Domestic	2.00	2.81	40.7%	(-) 39%
LT Agriculture	0.92	1.77	91.9%	(-)62%
HT Agriculture	3.12	4.58	46.7%	(-)1%
Subsidizing categories				
LT Industrial	4.04	5.15	27.4%	+11%
HT Industrial	4.12	5.21	26.6%	+12%
EHT 66 kV	3.77	4.97	31.9%	+7%
EHT 110 kV	3.49	4.70	34.6%	+1%
Total	3.37	4.37	29.6%	

20. The above table indicates that the State Commission has given tariff increase of higher percentage to the subsidized categories compared to the subsidizing categories of the Appellant Association. For example, the Domestic tariff has been increased by more than 40% and LT Agriculture by about 92%. On the other hand, the percentage increase in Appellant's categories is lower e.g. HT Industrial category 26.6%, EHT 66 kV about 32% and EHT 132 kV 34.6%. The approved tariff of HT Industrial Category is 12% above the average cost of supply, EHT 66 kV 7% above and EHT 132 kV 1% above the average cost of supply. Thus, the tariff of Appellant's categories i.e. HT Industrial, EHT 66 kV and EHT 132 kV are well within ± 20% of the average cost of supply, as per the Tariff Policy and the directions of the Tribunal in the various judgments and as also sought by the Appellants in

their suggestions and objections filed before the State Commission. However, the tariff of domestic and LT Agriculture categories is not within ± 20% of the average cost of supply though the tariff of the HT Agriculture Category has been brought very close to the Average cost of supply.

21. Let us now examine the Tariff Regulations, 2006 which is relevant to the present case. The relevant Regulations are Regulation 5 and 19.

> ***"5. Tariff Principle.***- *(1) While determining tariffs, the Commission may apply the principle that will reward performance and efficiency and reduction of losses and costs.*
>
> *(2) Tariff should be based on the average cost of supply to various categories of consumers based on Tariff Policy announced by Government of India as per Order No.23/2/2005-R&R Vol. III dated 6th January 2006. The licensee should conduct a study based on average cost method and the report*

of the study indicating the cost of providing electricity to various categories of consumers should form part of tariff revision proposal.

(3) When tariff revision proposals are formulated, the licensee should ensure that increase in tariff is minimum for subsidizing category of consumers bearing maximum cross subsidy and should be increased in a graded manner to the consumers in subsidized categories so that maximum increase in tariff is for categories of consumers enjoying maximum subsidy. The road map finalized by the Commission for reducing cross subsidy shall be followed by the Licensee".

"19. Road map for cross subsidy reduction.- *(1) The tariff charged to the consumer has to reflect the average cost of supply.*
(2) A road map for cross subsidy reduction will be fixed by the Commission and will be reviewed on the basis of average cost of supply".

22. Regulation 5 stipulates that tariff has to be based on average cost of supply to various categories of consumers based on Tariff Policy notified by the Government of India. Also the increase in tariff should be minimum for subsidizing category of consumers and maximum for the subsidized categories to which the tariff should be increased in a graded manner. The Regulation 19 regarding cross subsidy reduction also specifies the road map for cross subsidy reduction on the basis of average cost of supply.

23. Regulation 8.3 of Tariff Policy which deals with Tariff design and linkage of tariffs to cost of service provides for:

> *"Accordingly, the following principles should be adopted:*
>
> *1. In accordance with the National Electricity Policy, consumers below poverty line who consume*

below a specified level, say 30 units per month, may receive a special support through cross subsidy. Tariffs for such designated group of consumers will be at least 50% of the average cost of supply. This provision will be re-examined after five years.

2. For achieving the objective that the tariff progressively reflects the cost of supply of electricity, the SERC would notify roadmap within six months with a target that latest by the end of year 2010-2011 tariffs are within ± 20 % of the average cost of supply. The road map would also have intermediate milestones, based on the approach of a gradual reduction in cross subsidy.

For example if the average cost of service is Rs. 3 per unit, at the end of year 2010-2011 the tariff for the cross subsidised categories excluding those referred to in para 1 above should not be lower than Rs 2.40 per unit and that for any of the cross-subsidising categories should not go beyond Rs 3.60 per unit".

24. The Tariff Policy indicates that the tariff should progressively reflect the cost of supply of electricity and to achieve this objective by 2010-11, the State Commission would notify a road map with the target that by the end of FY 2010-11 the tariffs are within ± 20% of the average cost of supply. The example given in the Tariff Regulations clearly indicates that the tariffs of subsidized and subsidizing categories of consumers by 2010-11 have to be within ± 20% of the average (overall) cost of supply of the distribution licensee as the targetted tariffs for all subsidizing and subsidized consumers categories have been worked out with reference to one average cost of supply.

25. Let us now examine the various judgments of the Tribunal referred to by the Appellant.

26. The first judgment is dated 2.6.2006 in Appeal nos. 124 of 2006 & batch in the matter of Kashi Vishwanath Steel Ltd. vs. UERC. In this case the State Commission's order was challenged as it determined the cost of power supplied to steel units separately on the basis of the highest power purchase cost instead of on the basis of pooled purchase cost. The Tribunal decided that the State Commission should re-determine the tariff on the basis of pooled average cost of power purchased from all sources for all the categories of consumers and while re-determining the tariff the Commission shall ensure that no tariff shock is caused to any other category.

27. In the present case the State Commission has determined the average cost of power supply on the basis of pooled power purchase cost. The percentage increase in tariff in case of Appellant's categories is

comparable to percentage increase in average cost of supply and is lower than the percentage increase for subsidized categories as per the Tariff Regulations. The tariff for the Appellants has been enhanced in 2012-13 after a period of 10 years. The Appellants in their objections filed before the State Commission had requested for their tariff to be kept within ± 20% of the average cost of supply in accordance with the Tariff Policy which has been achieved in the impugned tariff order. The increase in tariff of the Appellant's categories is not disproportionate to the increase in average cost of supply. Therefore, we do not find that the Appellants' category has been subjected to a tariff shock. Thus, this judgment will be of no help to the Appellant.

28. The next judgment is dated 26.5.2006 in Appeal nos. 4 of 2005 & batch in the matter of M/s. Siel Ltd. vs. PSERC & Others.

29. In the above Appeal the Industrial consumers had challenged the tariff order on the ground that the tariff is to be based on cost of supply of electricity to each category of consumers having regard to voltage at which supply is made available and the tariff order was contrary to the provisions of the Section 61(d) and (g) of the Act. In the above case, the cross subsidy of the industrial consumers had been increased. The Tribunal in this case decided as under:

> *"109. According to Section 61(g) of the Act of 2003, the Commission is required to specify the period within which cross subsidy would be reduced and eliminated so that the tariff progressively reflects the cost of supply of electricity. Under Section 28(2) of the Act of 1998, the Commission while*

prescribing the terms and conditions of tariff was required to safeguard the interests of the consumers and at the same time, it was to ensure that the consumers paid for the use of the electricity in a manner based on average cost of supply. The word "Average" preceding the words "cost of supply" is absent in Section 61(g) of the Act of 2003. The omission of the word "Average" is significant. It indicates that the cost of supply means the actual cost of supply, but it is not the intent of the legislation that the Commission should determine the tariff based on cost of supply from the date of the enforcement of the Act of 2003. Section 61(g) of the Act of 2003 envisages a gradual transition from the tariff loaded with cross subsidies to a tariff reflective of cost of supply to various class and categories of consumers. Till the Commission progressively reaches that stage, in the interregnum, the roadmap for achieving the objective must be notified by the Commission within six months from January 6, 2006, when the tariff Policy was notified by the Government of India, i.e. by July 6, 2006. In consonance with the

tariff policy, by the end of the year 2010-11, tariffs are required to be fixed within ±20% of the average cost of supply (pooled cost of supply of energy received from different sources). But the policy has reached only up to average cost of supply. As per the Act, tariff must be gradually fine tuned to the cost of supply of electricity and the Commission should be able to reach the target within a reasonable period of time to be specified by it. Therefore, for the present, the approach adopted by the Commission in determining the average cost of supply cannot be faulted. We, however, hasten to add that we disapprove the view of the Commission that the words "Cost of Supply" means "Average Cost of Supply". The Commission shall gradually move from the principle of average cost of supply towards cost of supply.

110. Keeping in view the provisions of Section 61 (g), which requires tariff to ultimately reflect the cost of supply of electricity and the National Tariff Policy, which requires tariff to be within ± 20% of the average cost of supply, it seems to us that the

Commission must determine the cost of supply, as that is the goal set by the Act. It should also determine the average cost of supply. Once the figures are known, they must be juxtaposed, with the actual tariff fixed by the commission. This will transparently show the extent of cross subsidy added to the tariff, which will be the difference between the tariff per unit and the actual cost of supply.

111. In a given case, where an appropriate Commission comes to the conclusion that time has come when tariff is to be fixed without providing for cross subsidies between various consumer categories, it can fix the tariff accordingly as there is nothing in the Act which compels a regulatory Commission to formulate tariff providing for cross subsidies between the consumer categories for all times to come".

"119. We further direct that:

i) The Commission shall determine the cost of supply of electricity to different class and categories of consumers;

ii) The Commission shall also determine the average cost of supply;

iii) Once the figures of cost of supply and average cost of supply are known, the Commission shall determine the extent of cross subsidies added to tariff in respect of each class/category of consumers; and

iv) The consumers who are being cross subsidized by the Commission, a limit of consumption shall be specified for which special support through cross subsidy may be provided. Once the consumer exceeds the limit, he shall be charged at normal tariff. These directions shall be applicable from the next tariff year onwards".

30. In the above judgment, the Tribunal decided that the Section 61(g) of the Act required the Commission to specify the period within which cross subsidy would

be reduced and eliminated so that the tariff progressively reflected the cost of supply of electricity. Till the Commission progressively reaches that stage, in the interregnum, the road map for achieving objective must be notified by the State Commission in consonance of the Tariff Policy so that the tariffs are fixed within ± 20% of the average cost of supply (pooled cost of supply received from different sources) by the end of year 2010-11. Therefore, the Tribunal directed that the State Commission would determine both average cost of supply and cost of supply to different categories of consumers. The Tribunal also did not find fault with the approach of the State Commission to determine the average cost of supply, for the present but also wanted cross subsidy to be determined on the basis of respective cost of supply to

the various categories of consumers to transparently show the extent of cross subsidy.

31. In the present case, the State Commission has not determined the cost of supply for different categories of consumers due to non-availability of data and has determined the tariff on the basis of average cost of supply. However, it is noticed that the State Commission has tried to gradually reduce the cross subsidy to the subsidized consumers. The tariffs of Appellant's categories have been fixed well within ± 20% of the average cost of supply. The State Commission for the domestic consumers has limited the cross subsidies to a particular consumption of electricity and the domestic consumers beyond that limit are not subsidized but on the other hand cross subsidize other subsidized consumers in line with the directions of the Tribunal in Siel judgment. However,

the State Commission has gone wrong in deciding not to consider the voltage-wise cost of supply taking refuge under the Model Tariff Guidelines recorded by the Forum of Regulators which is not proper.

32. One pertinent point which is required to be considered by us is that after the Siel judgment, Section 61(g) has been amended w.e.from 15.6.2007 to the extent that the wordings "and also reduces and eliminates cross subsidies within the period to be specified by the Appropriate Commission" have been substituted by the wordings "and also reduces cross subsidies in the manner specified by the Appropriate Commission". Thus, the intent of the legislation after the above amendment is that the cross subsidies have to be reduced in the manner specified by the State Commission but may not be eliminated. Thus, the findings of the Tribunal in Siel judgment rendered

prior to the 2007 amendment regarding gradual reduction of cross subsidy with a view to 'eliminate' the cross subsidy will not be applicable after amendment of the Act in 2007. Therefore, we may have to refer to the findings of the Tribunal in this regard subsequent to the amendment of 2007.

33. The next judgment is dated 19.12.2007 in Appeal no. 146 of 2007 in the matter of Spencer's Retail Ltd. vs. MERC & Others. In this case the Appellant, a shopping mall had challenged the tariff order for increasing the tariff of their category by 80% even though average cost of supply increased by only 6% due to reclassification of the Appellant's category, thus increasing the cross subsidy substantially and causing tariff shock. The Tribunal set aside the order for increasing the cross subsidy exorbitantly subjecting the Appellant's category to severe shock. That is not

the case in the present case. Hence, Spencer's case also would not be of any help to the Appellant.

34. Appeal nos. 16, 98 and 107 of 2008 referred to by the Appellant are also cases similar to Appeal no. 146 of 2007 by the same Appellant i.e. M/s. Spencer's Retail Ltd. and other similar consumers challenging the order of the State Commission due to exorbitant increase in cross subsidy and tariff shock by increasing the tariff at a percentage much higher than %age increase in average cost of power supply which have also been decided in favour of the Appellant on the lines of the judgment in the Appeal no. 146 of 2007. These judgments are also not relevant to the present case where the %age increase in tariff of the Appellant's category is more or less at the same level as %age increase in average cost of power supply and the tariffs of Appellant's categories are also within

± 20% of the average cost of power supply as per the Tariff Policy.

35. Another issue in the above Appeals was booking of expensive power to the Appellant's category instead of pooled cost of power which was the issue already decided by the Tribunal in Kashi Vishwanath case against the State Commission. This is not the case in the present Appeal where the State Commission has not booked expensive power procured by the distribution licensee to the Appellant's category but has determined the tariff on the basis of pooled cost of power procured by the Board, as per the dictum laid down by the Tribunal.

36. Appeal no. 131 of 2008 and batch in the matter of Inorbit Malls (India) Pvt. Ltd. vs. MERC & Ors. are also cases similar to Spencer's case where the tariff of the Appellant's category was increased exorbitantly much

more than the increase in average cost of power supply which again is not the case in the present Appeal.

37. Appeal no. 9 of 2009 was an Appeal filed by Multiplex Association challenging the order of the State Commission increasing the tariff of the Appellant. The Tribunal found that the tariff increase was not disproportionate or exorbitant and dismissed the Appeal. This case is, therefore, against the Appellant in the present case.

38. Appeal no. 106 of 2008 by Mumbai International Airport Ltd. pertained to challenge of Maharashtra State Commission's tariff order reclassifying the Airport in Commercial category imposing higher tariff on the ground that the consumers in this category were non-critical service having higher capacity to pay. The contention of the Appellant was that the Airport is

rendering essential service and its consumption cannot be said to be unwanted consumption. The cross subsidy in case of the Appellant was made 85% and increase in tariff 43% with respect to the previous year and the State Commission felt that their consumption was increasing rapidly resulting in purchase of expensive power. The Tribunal on the basis of judgment in Spensers' case and Kashi Vishwanath Steel Ltd. case set aside the order of the State Commission reclassifying the Appellant in the newly created category with higher tariff. The fact of that case would not apply to the present case. The Appellants are not rendering essential public service. Hence, this case will also be of no use to the Appellant.

39. The next case is Appeal nos. 102 of 2010 & batch in the matter of M/s. Tata Steel Ltd. vs. OERC & Others. In this Appeal the issues on hand have been

deliberated upon comprehensively by this Tribunal. In Tata Steel case also the State Commission contended that it was not possible to determine category wise cost of supply due to lack of data.

40. The findings of the Tribunal in the above Appeals is as under:

> *"6. After considering the contentions of the parties, we have framed the following questions for consideration:*
>
> *i) Whether the State Commission has erred in not determining the tariff of the appellants based on the actual cost of supply according to the provisions of the Act, the Policy and the Regulations?"*
>
> *"16. In view of above provisions of the Act, National Electricity Policy, Tariff Policy and the Regulations, we have to find answer to the question whether the tariff of the appellants should be based on average cost of supply or actual cost of supply to the*

appellant's consumer category, which we shall do in the following paragraphs.

17. Section 61(g) of the 2003 Act stipulates that the tariff should progressively reflect the cost of supply and cross subsidies should be reduced within the time period specified by the State Commission. The Tariff Policy stipulates the target for achieving this objective latest by the end of year 2010-11, such that the tariffs are within ± 20% of the average cost of supply. In this connection, it would be worthwhile to examine the original provision of the Section 61(g). The original provision of Section 61(g) "the tariff progressively reflects the cost of supply of electricity and also, reduces and eliminates cross subsidies within the period to be specified by the Appropriate Commission" was replaced by "the tariff progressively reflects the cost of supply of electricity and also reduces cross subsidies in the manner specified by the Appropriate Commission" by an amendment under Electricity (Amendment) Act, 2007 w.e.f. 15.6.2007. Thus the intention of

the Parliament in amending the above provisions of the Act by removing provision for elimination of cross subsidies appears to be that the cross subsidies may be reduced but may not have to be eliminated. The tariff should progressively reflect the cost of supply but at the same time the cross subsidy, though may be reduced, may not be eliminated. If strict commercial principles are followed, then the tariffs have to be based on the cost to supply a consumer category. However, it is not the intent of the Act after the amendment in the year 2007 (Act 26 of 2007) that the tariff should be the mirror image of the cost of supply of electricity to a category of consumer".

"19. The National Electricity Policy provides for reducing the cross subsidies progressively and gradually. The gradual reduction is envisaged to avoid tariff shock to the subsidized categories of consumers. It also provides for subsidized tariff for consumers below poverty line for minimum level of support. Cross subsidy for such categories of

consumers has to be necessarily provided by the subsidizing consumers".

"22. After cogent reading of all the above provisions of the Act, the Policy and the Regulations we infer the following:

i) The cross subsidy for a consumer category is the difference between cost to serve that category of consumers and average tariff realization of that category of consumers. While the cross-subsidies have to be reduced progressively and gradually to avoid tariff shock to the subsidized categories, the cross-subsidies may not be eliminated.

ii) The tariff for different categories of consumer may progressively reflect the cost of electricity to the consumer category but may not be a mirror image of cost to supply to the respective consumer categories.

iii) Tariff for consumers below the poverty line will be at least 50% of the average cost of supply.

iv) The tariffs should be within ±20% of the average cost of supply by the end of 2010-11 to achieve the objective that the tariff progressively reflects the cost of supply of electricity.

v) The cross subsidies may gradually be reduced but should not be increased for a category of subsidizing consumer.

vi) The tariffs can be differentiated according to the consumer's load factor, power factor, voltage, total consumption of electricity during specified period or the time or the geographical location, the nature of supply and the purpose for which electricity is required.

Thus, if the cross subsidy calculated on the basis of cost of supply to the consumer category is not increased but reduced gradually, the tariff of consumer categories is within ±20% of the average cost of supply except the consumers below the poverty line, tariffs of different categories of consumers are differentiated only according to the factors given in Section 62(3) and there is no tariff

shock to any category of consumer, no prejudice would have been caused to any category of consumers with regard to the issues of cross subsidy and cost of supply raised in this appeal".

"The State Commission has expressed difficulties in determining the voltage-wise cost of supply in the absence of 100% metering at the level of consumers and distribution transformers. The State Commission has also held that the submissions of distribution companies regarding cost allocation in the tariff filing do not have technical and commercial data support. The State Commission has also concluded that from the conjoint reading of the Tariff Policy and National Electricity Policy, the cost of supply can be construed to mean the average cost of supply. Therefore, the State Commission has considered it prudent to accept the average overall cost of supply for computation of cross-subsidy".

"27. We do not agree with the findings of the State Commission that the cost to supply a consumer

category is the same as average cost of supply for the distribution system as a whole and average cost of supply can be used in calculation of cross subsidy instead of cost to supply. This is contrary to Regulation 7 (c)(iii) of the State Commission".

"This Tribunal in the above Judgment has held that the cost of supply as indicated in Section 61(g) is not the average cost of supply but the actual cost of supply and the cross subsidy is the difference between the tariff fixed by the State Commission and the actual cost of supply".

"32. Ideally, the network costs can be split into the partial costs of the different voltage level and the cost of supply at a particular voltage level is the cost at that voltage level and upstream network. However, in the absence of segregated network costs, it would be prudent to work out the voltage-wise cost of supply taking into account the distribution losses at different voltage levels as a first major step in the right direction. As power purchase cost is a major component of the tariff,

apportioning the power purchase cost at different voltage levels taking into account the distribution losses at the relevant voltage level and the upstream system will facilitate determination of voltage wise cost of supply, though not very accurate, but a simple and practical method to reflect the actual cost of supply".

"40. We are also unable to establish if the cross subsidy as determined with respect to cost to supply has reduced, with respect to the previous year (s) for the appellants' category, as per the mandate of the Act, or not as the State Commission has not determined the cross subsidy with respect to cost of supply according to the Regulations. We are also not in a position to establish if the tariff for different categories of consumers including the appellant's category is within ± 20% of average cost of supply as per the mandate of the Tariff Policy due to incorrect representation in the impugned order. Determination of cost of supply as per our directions will involve carrying out system studies which is time consuming and can

be implemented only in the future tariff orders. However, whether the tariff of the appellant's category is within 20% of the average cost of supply can be determined. Accordingly, the State Commission is directed to determine the average tariff realization per unit of the appellant's category which will be the expected revenue realised from the appellants' consumer category divided by the expected energy sale to the appellants' consumer category according to the ARR, and check if the tariff applicable to appellants' consumer category is within 20% of average cost of supply and provide consequential benefit to the appellants, if any after hearing all concerned.

41. <u>Summary of our findings</u>

41.1. After considering the provisions of the Act, the National Electricity Policy, Tariff Policy and the Regulations of the State Commission, we have come to the conclusion that if the cross subsidy calculated on the basis of cost of supply to the consumer category is not increased but reduced gradually, the tariff of consumer categories is

within ±20% of the average cost of supply except the consumers below the poverty line, tariffs of different categories of consumers are differentiated only according to the factors given in Section 62(3) and there is no tariff shock to any category of consumer, no prejudice would have been caused to any category of consumers with regard to the issues of cross subsidy and cost of supply raised in this appeal.

41.2. We do not agree with the findings of the State Commission that cost to supply a consumer category is the same as average cost of supply for the distribution system as a whole and average cost of supply can be used in calculation of cross subsidy instead of actual cost of supply. This is contrary to Regulation 7 (c)(iii) of the State Commission and findings of this Tribunal in the Judgment reported in 2007(APTEL) 931 SIEL Limited, New Delhi v/s PSERC & Ors.

41.3. The State Commission has expressed difficulties in determining cost of supply in view of

non-availability of metering data and segregation of the network costs. In our opinion, it will not be prudent to wait indefinitely for availability of the entire data and it would be advisable to initiate a simple formulation which could take into account the major cost elements. There is no need to make distinction between the distribution charges of identical consumers connected at different nodes in the distribution network. It would be adequate to determine the voltage-wise cost of supply taking into account the major cost element which would be applicable to all the categories of consumers connected to the same voltage level at different locations in the distribution system. We have given a practical formulation to determine voltage wise cost of supply to all category of consumers connected at the same voltage level in paragraphs 31 to 35 above. Accordingly, the State Commission is directed to determine cross subsidy for different categories of consumers within next six months from FY 2010-11 onwards and ensure that in future orders for ARR and tariff of the distribution licensees, cross subsidies for different consumer

categories are determined according to the directions given in this Judgment and that the cross subsidies are reduced gradually as per the provisions of the Act.

41.4. In view of pathetic condition of consumers and distribution feeder and transformer metering, we direct the State Commission to take immediate action for preparation of a metering scheme as a project by the distribution company and its approval and implementation as per a time bound schedule to be decided by the State Commission.

41.5. According to the Tariff Policy, the tariff of all categories of consumers except those below poverty line have to be within ± 20% of the total average cost of supply. The variation of tariffs of different category with respect to average cost of supply has not been correctly determined by the State Commission. The State Commission has erred in clubbing different consumer categories having different tariff in one category based on voltage of supply. Also for the appellants' category average

tariff per unit has been incorrectly determined at assumed load factor of 80%. The State Commission is directed to determine the average tariff for appellant's another category according to the directions given in paragraphs 39 and 40. Accordingly, we remand the matter to the State Commission to re-determine the variation of average tariff for different consumer categories with respect to average cost of supply and provide consequential relief to appellant's consumer category in terms of the tariff policy, if any, after hearing all concerned".

41. Thus, in Tata Steel case, the Tribunal laid down the principles of tariff determination with respect to cross subsidy, average cost of supply and category-wise cost of supply. The Tribunal granted relief to the Appellant to the extent of maintaining tariff within ± 20% of the overall average cost of supply. For determination of the cross subsidy on the basis of cost of supply to the respective category of consumer for

the sake of transparency and to check if the cross subsidy has increased or reduced, the Tribunal gave a formulation for determination of voltage wise cost of supply for future tariff determination. However, the Tribunal did not hold that the tariffs have to be determined only on the basis of voltage wise cost of supply. The Tribunal also held that the tariffs may not be the mirror image of voltage wise cost of supply.

42. In the present case, the State Commission has determined the tariff of the Appellant's category of HT and EHT Industrial consumers well within 20% of the average cost of supply as per the Tariff Policy but did not consider the voltage-wise cost of supply for working out the cross subsidy for each category of consumer.

43. The State Commission has not determined cross subsidy with respect to cost of supply to the respective consumer categories due to lack of data. This would have transparently shown the cross subsidies by Appellant's HT & EHT categories to subsidized categories of consumers. However, we find that the State Commission has enhanced the tariff of subsidized consumers much more than the increase of tariffs for the Appellant's categories and attempted to reduce cross subsidies. The tariffs of domestic and agriculture categories have also been increased by 40.7% and 91.9% respectively as against average increase in tariff by 29.6%. Further increase in domestic and agriculture categories would have given a higher tariff shock to these subsidized categories of consumers. It is also seen that the tariff of the domestic consumers beyond a level of energy

consumption has also been increased so that they are not subsidized and on the other hand they subsidize other subsidized consumers. Thereafter, we do not incline to set aside the impugned order merely because the voltage-wise cost of supply has not been determined. However, we direct the State Commission to initiate study for voltage wise cost of supply as directed in the Tata Steel judgment of the Tribunal and complete the same within 6 months of the date of this judgment for use in the subsequent tariff orders to transparently determine the cross subsidy by the various categories of consumers with respect to voltage-wise cost of supply.

44. The next case referred to by the Appellant is Appeal nos. 13 and 198 of 2010 in the matter of Ispat Industries Ltd. vs. MERC & Ors. The relevant findings of the Tribunal in this case are as under:

"15.4 The issue relating to voltage-wise cost of supply and cross subsidy has been decided in the judgment dated 30.05.2011 in Appeal nos. 102 of 2010 and batch in the matter of Tata Steel Ltd. Vs. Orissa Electricity Regulatory Commission & Another. The relevant extracts of the judgment are reproduced below:-"

"15.6 The ratio in the above judgments of the Tribunal will squarely apply to the present case. Accordingly, the State Commission is directed to undertake the exercise of determination of voltage-wise cost of supply within six month of the date of this judgment and ensure that in tariff orders passed subsequent to that, cross subsidies for different categories of consumers are determined based on the voltage-wise cost of supply and tariffs are determined based on the settled principles.

15.7 In the impugned tariff order the State Commission has computed the ratio of average billing rate to average cost of supply for different categories of consumers at Page 221 of the order.

For HT-I Industry (Express factor) applicable to M/s. Ispat Industries the ratio of average billing rate to average cost of supply is 128%. The increase in the tariff for HT category has been of the order of 1.87% only. The State Commission has also recorded in the impugned order that it has separately initiated a consultative process for formulation of the road map for cross subsidy reduction. The FY 2010-11 is already over and one more year e.i FY 2011-12 has also elapsed after that. Determination of voltage-wise cost of supply will take some more time. Any change in principle of setting up the tariffs will have an impact on other categories of consumers and retrospective change in the tariffs of all the consumers which may not be desirable. In view of above, we do not want to interfere with the impugned order. Therefore our directions in this regard are for future after the voltage-wise cost of supply is determined by the State Commission".

"17. Summary of our findings:

…….

iv) Cross subsidy/cost of supply: We are not inclined to interfere with the impugned order for the reasons explained in paragraph 15.7 of the judgment. However, we have given directions in paragraph 15.6 of the judgment for determination of voltage-wise cost of supply in pursuance of the decision of this Tribunal in judgment dated 30.05.2011 in Appeal nos. 102 of 2010 and batch in the matter of Tata Steel Ltd. Vs. OERC & Another, within six months of the date of this judgment and ensure that in tariff orders passed subsequent to that take into account the voltage-wise cost of supply in determining the cross subsidy and tariffs".

45. Thus, in Ispat Industries case the Tribunal after referring to Tata Steel judgment directed the State Commission to determine voltage wise cost of supply within 6 months of the date of the judgment for determining the cross subsidies for different categories

of consumes based on voltage wise cost of supply in future.

46. We cannot give a straight forward formula for determination of Retail Supply Tariff. However, the State Commission has to determine the tariff as per the principle laid by the Tribunal in the various cases.

47. The findings of the Tribunal in the various cases are summarized as under keeping in view the amendment made in the Electricity Act, 2003 in the year 2007:

i) The pooled power purchase cost from all sources of supply to the distribution licensee has to be used for determination of cost of supply instead of using different costs of various power supply sources to different categories of consumers.

ii) The cost of supply referred in Section 61(g) is the cost of supply to the consumer category and not overall average cost of supply.

iii) The cross subsidy for a consumer category is the difference between cost to serve that category of consumer and average tariff realization for that category of consumer.

iv) The State Commission has to determine the category wise cost of supply as well as overall average cost of supply to all the consumers of the distribution licensee.

v) While the cross subsidies have to be reduced progressively and gradually in the manner specified by the Appropriate Commission so as to avoid tariff shock to the subsidized categories of consumers, it is not the intention of the legislation that cross subsidies have to be eliminated. Therefore, it is <u>not</u> necessary that the

tariff should be the mirror image of actual cost of supply to the concerned category of consumer and to make the cross subsidy zero.

vi) The subsidizing consumers should not be subjected to disproportionate increase in tariff so as to subject them to tariff shock.

vii) The State Commission should fix a limit of consumption for the subsidized consumer categories and once a consumer exceeds that limit he has to be charged at normal tariff.

viii) Tariff for consumer below the poverty line will be at least 50% of the average cost of supply. Tariffs for all other categories should be within ± 20% of the overall average cost of supply for the distribution licensee by the end of 2010-11.

ix) The tariffs can be differentiated according to consumer's load factor, voltage, total consumption of electricity during specified period or the time or the geographical location, the nature of supply and the purpose for which electricity is required. For example, the consumers in domestic category can be differentiated from the consumers in Industrial category or commercial category on the basis of purpose for which electricity is required.

x) The Tribunal in Appeal no. 102 of 2010 and batch in Tata Steel case has also given a formulation for determination of voltage-wise cost of supply in the absence of availability of detailed data.

48. In the present case, as indicated above, the tariffs of the Appellant's HT/EHT categories have been revised after ten years. The State Commission in the impugned order has fixed the tariff of the HT/EHT

Industrial categories i.e. the categories of the Appellant's members, within ± 20% of the average cost of supply as sought by them in their objections/suggestions filed before the State Commission. The tariffs of the HT/EHT industrial consumers have also not been subjected to disproportionate increase in tariff and they have not been subjected to any tariff shock. The percentage hike in tariffs of subsidized Domestic and Agriculture categories has been much more than the HT/EHT Industrial categories. Within the Domestic Category the consumers beyond a particular consumption level are not subsidized and infact they subsidize other categories, as per the dictum laid by the Tribunal. Any reduction in tariff of the Appellant's categories would have resulted in further increase in tariff of the

subsidizing categories subjecting them to further tariff shock.

49. The State Commission in the impugned order has decided not to consider voltage wise cost of supply to determine cross subsidy relying on its own Regulations and recommendations of the Forum of Regulators. We find that the State Commission's Regulations provide for determination of cross subsidy with respect of average cost of supply which is contrary to the interpretation of cost of supply and cross subsidy under Section 61(g) of the Act given by this Tribunal. The State Commission is also wrong in relying upon the recommendations of the Forum of Regulators which is only a recommendatory body as against the dictum held by this Tribunal which is binding on the State Commission. In view of this Tribunal's interpretation of Section 61(g) of the Act for cost of

supply, we have to ignore the Regulations of the State Commission and have to hold that the State Commission has to determine the cross subsidy with respect to cost of supply for the particular category of consumer. Accordingly, as mentioned earlier, we have given directions to the State Commission for determination of voltage wise cost of supply within six months from the date of this judgment for future for bringing transparency in determination of cross subsidy. However, as the State Commission has decided a higher percentage increase in tariffs of subsidized consumers as compared to subsidizing categories with a view to reduce the cross subsidies and have kept the tariffs of the consumer categories of the Appellant's members within ± 20% of the average cost of supply, we do not incline to interfere with the tariff decided by the State Commission for the Appellants.

50. Learned counsel for the Appellant has given a comparison of change in cross subsidy for Domestic and HT/EHT Industrial categories with respect to voltage wise cost of supply as computed by them to show that cross subsidy for HT Industrial categories has been increased against the dictum of the Tribunal. The Appellant has computed cost of supply at EHT, HT and LT levels by their own assumptions of transmission losses, and losses in HT and LT system of the Electricity Board. The cost of supply at EHT and has been considered as cost of power purchase from sources other than Board's own generation, total energy procured from outside sources and that supplied by Board's own power plants and assumed transmission loss of 3%. This is wrong. Firstly, no such voltage-wise cost of supply has been decided by the State Commission in the impugned order.

Secondly, the computation of the Appellant is incorrect. The total cost of energy supply does not include the cost of generation of Board's own power stations while the total energy considered includes the energy supplied by the Board's own generation. Thirdly, the method of cost of supply at EHT is not in consonance with the ratio laid down by this Tribunal in Tata Steel judgment in Appeal no. 102 of 2010 and batch, wherein the Tribunal rejected the contention of the Appellants, the EHT consumers, that the distribution losses in respect of EHT consumers would be nil for computing cost of supply. The Tribunal held that the difference between the distribution losses allowed in the ARR and the technical losses as computed by the studies should also be apportioned to consumers at EHT for computing the cost of supply. The Tribunal also decided that as segregated network

costs are not available, all other costs of distribution system could be poled equitably at all voltage levels including EHT.

51. The Appellant has also argued that the HT/EHT Industrial categories have been subjected to tariff shock. We are unable to agree with the contention of the Appellant. Firstly, the tariff of the Appellant's category has been revised after 2002 i.e. after a lapse of about ten years as contended by the Electricity Board. Moreover, the Appellant's consumer categories have been subjected to tariff increase in consonance with the increase in average cost of supply. The percentage increase in tariff of the subsidized categories has been much more than the HT/EHT Industrial categories of the Appellant's members. The overall increase in tariffs is 29.6%. The increase in tariffs of HT, EHT 66kV and EHT 132 kV is 26.6%, 31.9% and 34.6%

respectively as against increase in Domestic of 40.7% and Agriculture 91.9%. In our opinion, the Board could not be penalized so as not to allow its prudent expenditure in full and the subsidized consumers could not be subjected to a higher tariff shock merely because the State Commission has chosen not to increase tariff for past several years.

52. According to the Respondent Electricity Board, the State Commission had reviewed the tariff during the FY 2007-08 but decided that there was no necessity of tariff revision and did not enhance the tariff applicable to the Appellant. However, since 2007-08, the average cost of supply has been increasing considerably and they have given figures for increase in the cost of supply increasing by 53.9% since 2007-08. In our opinion, comparison of cross subsidy with reference to the previous year i.e.

2011-12 will not be valid as the tariff was not changed for last 10 years even though the cost of supply increased substantially after 2007-08 and the tariff for EHT and HT categories in the previous year was less than the average cost of supply.

53. The **next issue is the disallowance of the Load factor incentive and Prompt Payment incentive.**

54. The Appellant has made the following submissions on this issue:

> *"The Appellant's association before the State Commission sought the introduction of various rebates and incentives such as power factor incentive, load factor incentive, prompt payment incentive, bulk consumption etc. The State Commission allowed the Power Factor incentive only but has disallowed the Load Factor incentive*

and the Prompt Payment incentive without adducing valid reasons".

55. In reply to the above submissions, the learned counsel for the Respondents would submit the following:

"The State Commission has enhanced the power factor incentive rates considerably in the impugned order. Every consumer has the obligation to pay the electricity tariff within the time stipulated. However, the Electricity Board has been allowing a rebate upto 4% per annum for advance payment to the consumers. Therefore, there is no merit in the contention urged by the Appellant".

56. The Appellant before the State Commission prayed for various incentives such as power factor incentive, load factor incentive, prompt payment incentive, and bulk consumption etc.; but the State Commission has allowed only the power factor incentive without allowing the other incentives. With

regard to this issue, the State Commission has made the following observations:

> "47. Representatives *of HT-EHT Consumers had suggested that adequate incentive systems for power factor improvement, high load factor, bulk energy consumption, prompt payments etc may be introduced. The implications of these systems in the performance and revenues of the Board and the impact in the consumer's bill amount can be evaluated only after a detailed study. Hence Commission decides that the question of introduction of these incentives will be taken up separately and KSEB shall be directed to submit a detailed report on these issues. However, the Commission* ***accepts the proposal for improving the incentives for Power Factor Improvement*** *and the details are provided in the order in due course...."*

57. The above observations would indicate that the State Commission though accepted the proposal by

including the incentives for power factor improvement; the State Commission has concluded that the other incentives could be considered only after a detailed study.

58. As pointed out by the learned Counsel for the Appellant, the conduct of business regulations of the Commission which were framed in 2004 clearly provides that some of the incentives like load factor and power factor should be decided while determining the tariff. The relevant Regulation is as follows:

> "***46. Factors for determining tariff:*** *without prejudice to the generality of the powers of the Commission in determining the tariff for generation, transmission, wheeling and supply of electricity, the Commission may keep in view, while determining the tariff, factors such as;*
>
> *a) The need to link tariff adjustments to increases in the productivity of capital*

employed and improvements in efficiency so as to safeguard the interests of the consumers;

b) The need to rationalize tariffs to progressively reflect the cost of generation, transmission and distribution;

c) The need to eliminate cross-subsidies in a phased manner;

d) The need to transparently provide for appropriate incentives in a non-discriminatory manner, for a continuous enhancement in the efficiency of generation, transmission and distribution and up-gradation in the levels of service;

e) the need to transparently provide for appropriate incentives in a non-discriminatory manner to the consumers operating at high load factor and high power factor and without harmonics;

f) the promotion of development of a market (including trading) in power;

g) the promotion of co-generation and generation of electricity from renewable sources of energy;

h) the least cost adoption of environmental standards;

i) the need for healthy growth of the industry….”

59. The Business of Conduct Regulations, 2004 provides that the State Commission may keep in view *inter alia* appropriate incentive to the consumers operating at high load factor amongst many other factors.

60. However, the Tariff Regulations, 2006 notified subsequent to the above 2004 Regulations which are relevant to determination of tariff do not provide for any such incentives.

61. Section 62 (3) of the 2003 Act also provides that the State Commission may differentiate the consumers according to consumer's load factor, power factor, voltage, etc. However, it is a well settled position of law that the tariff determined by the State Commission cannot be held to be *ultra vires* just because it did not take into consideration certain principles or factors laid down in the Act or the Regulations.

62. The State Commission in the impugned order has held that it would separately consider the introduction of such incentive for high load factor and prompt payment after the Board has carried out a study on implication of these incentives in the performance and revenues of the Board and impact on consumer's bill. In view of the above, we do not find any infirmity in the order of the State Commission. The State Commission is justified in examining the implications of these

incentives before allowing them. We also find that the State Commission has not included any interest on working capital to cover the Operation and Maintenance expenses and receivables from the consumers in the ARR and Tariff of the Board. Inclusion of such expenses in the ARR could have given a reason to the Appellant to claim rebate for prompt payment. This is not the case here.

63. However, since the State Commission has decided that the question of introduction of incentive for load factor and prompt payment would be decided after examining the implications of these proposals and the Board has been directed to submit a detailed study on these issues, we feel that a time bound direction is necessary. Accordingly, we direct the Electricity Board to submit the relevant information on these issues as sought by the State Commission within 3

months from the date of this judgment and thereafter the State Commission shall decide the issue after hearing all concerned within 120 days for adoption by the State Commission in the subsequent tariff order. This issue is decided accordingly.

64. The **Last issue is retrospective Operation of the Tariff.**

65. According to the learned Counsel for Appellant, though the impugned order was passed on 25.7.2012, the State Commission held that it would be effective from 1.7.2012 i.e. retrospectively even before the date of the tariff order which is not contemplated by the Electricity Act as well as by the Regulations of the State Commission.

66. On this point, the learned counsel for the Appellant has cited the following authorities:

(a) Binani Zinc Ltd Vs Karnataka State Electricity Board (2009) 11 SCC 244;

(b) Bhupendra Singh Bhatia Vs State of Madhya Pradesh (2006) 13 SCC 700;

(c) Judgment dated 11.11.2011 in OP No.1 of 2011

67. According to the learned Counsel for the Respondent, the retrospective fixation is only for the purpose of annualization and the State Commission is entitled to fix the period for which the tariff would be operational retrospectively.

68. The learned Counsel for the Respondent has cited some decisions as under:

(a) Appeal no. 4 of 2005 in SIEL Ltd. Vs. Punjab State Electricity Regulatory Commission.

(b) Appeal No.140 of 2010 dated 28.1.2011 in the case of Kannan Devan Hill

Planatation Company Ltd Vs KSERC and Anr.

(c) Kanoria Chemical Industries Vs State of UP in (1992) 2 SCC 124.

69. Let us now examine the judgments of the Hon'ble Supreme Court relied upon by the Appellant.

70. In (2009) SCC 244 in the matter of Binani Zinc Ltd. Vs KERC the Hon'ble Supreme Court has held that the Commission is not empowered to frame tariff with retrospective effect so as to cover a period before its constitution. It was further held that it was a well settled law that the rule of law *inter alia* postulates that all laws would be prospective subject of course to enactment of an express provision or intendment to the contrary. The Hon'ble Supreme Court held that the Electricity Board had the requisite jurisdiction to

revise the tariff till such time the Regulatory Commission was constituted and the purposes of the Electricity Regulatory Commissions Act 1998 could be achieved through it. In the present case the State Commission has not determined the tariff for the period prior to its formation. Therefore, findings of Bihani Zinc case will not be applicable in the present case.

71. The second case (2006) 13 SCC 700 in the matter of Bhupendra Singh Bhatia Vs State of Madhya Pradesh is relating to sale and purchase of foreign liquor where the District Level Committee determined the price of foreign liquor procured by the State from whole sellers retrospectively. In that case the price decided by the purchaser State Government subsequent to the sale/purchase was set aside by the Hon'ble Supreme Court. This case is not applicable to

the present case where the Tariff has been determined by the State Commission after providing opportunity of hearing to all concerned including the buyers of electricity as per the provision of the Electricity Act, 2003 which is a complete law. Public notice for determination of ARR and ERC was given on 4th/5th February, 2012. The submissions made by the Appellant before the State Commission in the ARR and ERC proceedings clearly indicates that the Appellant knew that the tariff could be revised from 01.04.2012. However, due to the time taken in the ARR and ERC proceedings and thereafter tariff determination proceedings where the Appellants were again heard by the State Commission, the tariff order was issued on 25.7.2012 with tariff made effective from 01.07.2012 i.e. from beginning of the same month in which the tariff order was issued.

72. The third authority relied upon by the Appellant is order dated 11.11.2011 in OP No.1 of 2011 by this Tribunal in which the Tribunal directed the State Commission to initiate the tariff proceedings every year as per the time line specified in its Regulations and decide the annual tariff before the commencement of the Financial Year. This order could not be relied upon for retrospective application of the tariff order.

73. Learned Counsel for the Appellant has also referred to Regulation 3(1) and 4(2) of the 2003 Tariff Regulations in support of its argument against retrospective application of the tariff order stating that the State Commission had acted against its own Regulations. We find that these Regulations only give the time line for submission of the Annual Revenue Requirement before the commencement of any

financial year and in case the licensee desired to amend the current tariff, its application for amendment of tariff should be filed not later than 4 months before the intended date of implementation of the amended tariff. These Regulations do not pertain to retrospective application of the tariff. In the present case the ARR & ERC application was filed on 31.12.2011 i.e. 6 months before the date of implementation of the revised tariff (1.7.2012) and the Tariff Petition was filed in February, 2012 i.e. 4 months before the date of application of the revised tariff. In any case the 2003 Tariff Regulations have been superseded by the 2006 Tariff Regulations which do not have such provisions and which are relevant to the tariff determination in the impugned order.

74. Let us now refer to findings of the full bench of the Tribunal dated 26.5.2006 in Appeal no.4 of 2005 &

batch in case of Siel Ltd. which has upheld the retrospective determination tariff by the State Commission and which has been referred to by the learned counsel for the Respondent Board. The relevant findings are as under:

> *"77. Some of the Industrial Consumers have questioned determination of tariff by the Commission on the ground that the effect of the Tariff Order for the year 2005-06 was given from April 1, 2005 while the order was passed on June 14, 2005. According to them the Commission was not having any jurisdiction to require the consumers to pay enhanced tariff from a retrospective date.*
>
> *78. In order to determine the reasons which led to the passing of the tariff order on June 14, 2005 instead of it being passed on March 31, 2005, it is necessary to refer to a few dates. The Board filed ARR and tariff application on December 30, 2004. The application, however, was found to be*

incomplete. The Commission by its communication dated January 21, 2005 asked the Board to remove the deficiencies and complete the application. It was, however, only on Feb., 9, 2005 that the deficiencies were removed and the application was taken on record. This led to delay in the determination of tariff for the year 2005-06. The Commission was able to pass the tariff order only on June 14, 2005, though the financial year commenced on April 1, 2005.

79. It is not in dispute that the Commission determined the tariff for the year 2005-06. The Industrial Consumers would not have been able to grudge the application of the tariff order with effect from April 1, 2005, in case the tariff order was passed on that date or on a date close to that date. It is only because the tariff order was delayed by about two months that the Industrial Consumers are finding fault with its application from April 1, 2005.

80. It needs to be noticed that the retrospective operation covers only a period of two months and having regard to the short time involved, the Commission was of the view that the interest of the consumers will not be adversely affected by the retrospective operation of the tariff order.

81. We do not find that the Commission was wrong in its approach by giving effect to the tariff order from the aforesaid retrospective date as the tariff was fixed for the tariff year 2005-06, which commenced on 1st April, 2005. If the submission of the Industrial Consumers is accepted, a consumer could initiate some proceedings in a Court against the Commission with a prayer for seeking an interim order restraining the Commission from revising the tariff on some ground or the other. This could delay the passing of the tariff order in case an interim order interdicting the determination of tariff is passed pending the proceedings. In such a contingency, it is only after the interim order is lifted by the Court that the Commission would be in a position to pass the tariff order. Obviously, it

would only be just and fair that the tariff order relates back to and commences on the first day of the year for which the tariff determination is made. In Kanoria Chemicals & Industries Ltd. & Anr. Vs. State of U.P. & Ors. (1992) 2 SCC 124, a question was raised with regard to the competence of the Electricity Board to determine tariff with retrospective effect. The Supreme Court was of the view that retrospective effect to the revision of tariff was clearly envisaged in law. In this regard, the Supreme Court held as follows:

> *" A retrospective effect to the revision also seems to be clearly envisaged by the section. One can easily conceive a weighty reason for saying so. If the section were interpreted as conferring a power of revision only prospectively, a consumer affected can easily frustrate the effect of the provision by initiating proceedings seeking an injunction restraining the Board and State from revising the rates, on one ground or other, and thus getting the revision deferred indefinitely. Or, again, the*

revision of rates, even if effected promptly by the Board and State, may prove infructuous for one reason or another. Indeed, even in the present case, the Board and State were fairly prompt in taking steps. Even in January 1984, they warned the appellant that they were proposing to revise the rates and they did this too as early as in 1985. For reasons for which they cannot be blamed this proved ineffective. They revised the rates again in March 1988 and August 1991 and, till today, the validity of their action is under challenge. In this State of affairs, it would be a very impractical interpretation of the section to say that the revision of rates can only be prospective".

82. Section 62, which provides for determination of tariff by the Commission, does not suggest that the tariff cannot be determined with retrospective effect. In the instant case, the whole exercise was undertaken by the PSERC to determine tariff and the annual revenue requirement of the PSERB for the period April, 1, 2005 to March 31, 2006,

therefore, logically tariff should be applicable from April 1, 2005.

83. According to sub-section (6) of Section 64 of the Act of 2003, a tariff order unless amended or revoked continues to be in force for such period as may be specified in the tariff order. Thus the Commission is vested with the power to specify the period for which the tariff order will remain in force. The Commission deriving its power from Section 64(6) has specified that the order shall come into force from April 1, 2005. No fault can be found with such a retrospective specification of the Commission.

84. The learned counsel for the industrial consumers relied on the decision of the Supreme Court in Sri Vijay Lakshmi Rice Mills vs. State of Andhra Pradesh, AIR 1976 SC 1471, wherein it was held that a notification takes effect from the date it is issued and not from a prior date unless otherwise provided by the statute, expressly or by appropriate language from which its retrospective

operation could be inferred. This decision is of no avail to the industrial consumers, in view of the provisions of Section 64 (6) of the Act of 2003, which empowers the Commission to specify the period for which the tariff order will remain in force. In other words, the Commission is empowered to specify the date on which the tariff order will commence and the date on which it will expire.

85. The Board in consonance with the cost plus regime is entitled to recover all costs prudently incurred for providing service to the consumers. Besides, the Board is entitled to reasonable return. Since the cost prudently incurred has to be recovered, therefore, in the event of the tariff order being delayed, it can be made effective from the date tariff year commences or by annualisation of the tariff so that deficit, if any, is made good in the remaining part of the year or it could be recovered after truing up exercise by loading it in the tariff of the next year. All these options are available with the Commission.

86. There is one more aspect which needs to be considered. In case the Commission had lowered the tariff rates, relief to the consumers could not be denied on the ground that the tariff order is being operated retrospectively.

87. For all these reasons we hold that the Commission had the jurisdiction to pass the tariff order with retrospective effect. Therefore, we reject the submission of the learned counsel for the industrial consumers that the tariff cannot be fixed from a retrospective date.

75. In the above judgment the Tribunal has relied on the findings of the Hon'ble Supreme Court in (1992)2 SCC 124 in the matter of Kanoria Chemical Industries Vs. State of UP in which the Hon'ble Supreme Court upheld the retrospective revision of tariff. The findings of the Tribunal in the Siel case will be applicable to this case also.

76. Learned counsel for the Appellant has referred to the full bench judgment of the Tribunal dated 11.1.2011 in Appeal nos. 111 of 2010 and batch in the matter of Tamil Nadu Spinning Mills Association vs. Tamil Nadu Electricity Board & Others in support of his argument that the State Commission is not empowered to issue tariff order retrospectively. In that case the State Commission amended the Supply Code Regulations retrospectively to allow the Electricity Board to raise certain charges retrospectively. It was seen that when the State Commission passed the order for recovery of these charges, the Supply Code Regulations had not been amended and these were amended retrospectively subsequent to passing of the order for recovery of the charges. The Tribunal held that in the absence of a statute providing for power for delegated legislation to operate retrospectively, the

Regulations can only have prospective application. This judgment will not be applicable to the present case where the amendment of the regulation retrospectively is not involved. In the present case, the ERC and ARR proceedings for FY 2012-13 had been initiated in December,2011. The tariff petition was also filed before the commencement of the FY 2012-13 and the stakeholders were put to notice. The Appellants also furnished their objections and suggestions in the ARR and ERC proceeding and tariff proceeding for FY 2012-13 separately and all along they were aware that tariff were going to be revised for the FY 2012-13. It is not the case of the Appellants that they were unaware that the tariff was going to be revised for FY 2012-13 and the order has been passed applying the tariff retrospectively without their having any knowledge about the revision of tariff for FY 2012-13.

Thus, the above judgment referred to by the Appellant will not be of any help to him.

77. If the tariff is made applicable from the date of order i.e. 25.7.2012, the revenue gap in the ARR due to short recovery of the approved revenue will have to be allowed in the ARR and tariff of the subsequent year with carrying cost which will unnecessarily burden all the consumers with the carrying cost.

78. In any case the bills for the month of July 2012 at the revised tariff have to be raised only in the month of August 2012, i.e. after the date of the impugned order. Thus, there will not be any recovery of past arrears by the distribution licensee from the consumers on account of revision in tariff w.e.f. 1.7.2012.

79. In view of above, this issue is decided as against the Appellant.

80. **<u>Summary of our findings:</u>**

"i) **We find that in the present case, the State Commission has determined the tariff of the Appellant's category of HT and EHT Industrial consumers within ± 20% of the average cost of supply as per the Tariff Policy, the dictum laid down by this Tribunal and as sought by the Appellant in their objections filed before the State Commission. However, we give directions to the State Commission to determine the voltage-wise cost of supply for the various categories of consumers within six months of passing of this order and take that into account in determining the cross subsidy and tariffs in future as per the dictum laid down by this Tribunal.**

ii) We do not find that the Appellant's categories have been subjected to disproportionate increase in tariff and they have not been subjected to tariff shock.

iii) We also do not find that the State Commission has violated its Tariff Regulations in determining the tariff of the Appellant's category.

iv) It is a well settled position of law that the tariff determined by the State Commission cannot be held to be *ultra vires* just because it did not take into consideration certain principles or factors laid down in the Act or the Regulations for fixation of tariff. We do not incline to interfere with the order of the State Commission especially when it observed in the order that it would separately consider the introduction of incentive for high load factor and prompt payment after the

Board has carried out a study on implication of these incentives on the performance and revenues of the Board and impact on consumer's bill. However, we have given directions to the Electricity Board and the State Commission for consideration of these issues, as referred to, in paragraph 63 of this judgment.

v) We do not find any infirmity in the State Commission effecting the revision in tariff retrospectively w.e.f. 1.7.2012 as against the date of the tariff order of 25.7.2012."

81. Accordingly, this Appeal is disposed of with the directions to the Electricity Board and the State Commission on the issue of incentive for load factor and prompt payment in accordance with paragraph 63

and directions to the State Commission for determination of voltage-wise cost of supply in future.

82. Before parting with this case, we would like to record our appreciation for the thorough preparation and effective representation made by Mr. Buddy Ranganadhan, the learned Counsel for the Appellant. Mr. Ramesh Babu for R-1 and Mr. M.T. George for R-2 also deserve our appreciation for their effective assistance rendered to this Tribunal.

83. Pronounced in the open court on this ***31st day of May, 2013***.

(Rakesh Nath)
Technical Member

(Justice M. Karpaga Vinayagam)
Chairperson

√
REPORTABLE/~~NON-REPORTABLE~~

Appellate Tribunal for Electricity
(Appellate Jurisdiction)

Appeal Nos. 102, 103 & 112 of 2010

Dated 30th May, 2011

Present: Hon'ble Mr. Rakesh Nath, Technical Member
Hon'ble Mr. Justice P.S. Datta, Judicial Member

Appeal No. 102 of 2010 & IA No. 136 of 2010

In the matter of:

M/s. Tata Steel Limited,
24, Homi Mody Fort Street,
Mumbai
Represented through Sri Rajesh Chintak,
Chief Resident Executive ... Appellant(s)

Versus

1. Orissa Electricity Regulatory Commission,
Bidyut Niyamak Bhawan, Unit-VIII,
Bhubaneswar- 751 012.

2. North Eastern Electricity Supply Company,
of Orissa Limited, Regd. Office-Plot No. N/22,
IRC Village, Nayapalli,
Bhubaneswar- 751 015. ...Respondent(s)

Appeal No. 103 of 2010 & IA Nos. 137 & 138 of 2010

In the matter of:

M/s. Ferro Alloys Corporation Limited,
Randia, Bhadrak-756135,
Orissa,
Represented through its Resident Manager ... Appellant(s)

Versus

1. Orissa Electricity Regulatory Commission,
Bidyut Niyamak Bhawan, Unit-VIII,
Bhubaneswar- 751 012.

2. North Eastern Electricity Supply Company,
of Orissa Limited, Regd. Office-Plot No. N/22,
IRC Village, Nayapalli,
Bhubaneswar- 751 015. ...Respondent(s)

Appeal No. 112 of 2010 & IA Nos. 150 & 151 of 2010

In the matter of:

M/s. Balasore Alloys Limited,
(Formerly known as Ispat Alloys Limited),
Village-Balgopalpur,
P.O. Rasulpur, Via-Mitrapur, Balasore,
Orissa-756 020,
Represented through its Resident Representative,
Sri Girish Chandra Lenka ... Appellant(s)

Versus

1. Orissa Electricity Regulatory Commission,
Bidyut Niyamak Bhawan, Unit-VIII,
Bhubaneswar- 751 012.

2. North Eastern Electricity Supply Company,
of Orissa Limited, Regd. Office-Plot No. N/22,
IRC Village, Nayapalli,
Bhubaneswar- 751 015. ...Respondent(s)

Counsel for the Appellant(s): Mr. Ashok Parija, Sr. Advocate
Mr. M.G. Ramachandran,
Ms. Swapna Seshdari
Mr. R.M. Patnaik & Mr. P.P. Mohanty

Counsel for the Respondent(s): Mr. Suresh Tripathy for R-2
Mr. Rutwik Panda for OERC

JUDGMENT

HON'BLE MR. RAKESH NATH, TECHNICAL MEMBER

Appeal Nos. 102,103 and 112 of 2010 have been filed by M/s. Tata Steel Ltd., M/s. Ferro Alloys

Corporation Ltd. and M/s. Balasore Alloys Limited respectively against the order dated 20th March, 2010 of Orissa Electricity Regulatory Commission determining the Annual Revenue Requirements and Retail Supply Tariff for the Financial Year 2010-11 of the North Eastern Electricity Supply Company Limited, the distribution licensee. The State Commission is the respondent No. 1. The distribution licensee which supplies electricity to the appellants is the respondent no. 2.

2. The brief facts of the case are as under:

2.1. The appellants are operating Ferro Alloy plants and are Extra High Voltage (EHT) consumers of respondent no.2/distribution licensee. Even though the appellants are the consumers of the distribution licensee, their premises are connected to the transmission lines and network of the Orissa Power

Transmission Corporation Limited, the transmission licensee and the electricity is transmitted to the appellants through the network of the transmission licensee.

2.2. The appellants earlier had agreements with the distribution licensee for power supply at special rate upto 9.12.2004. The State Commission by order dated 22.3.2005 allowed the special tariff to these industries for a period of three years. Thereafter, by order dated 20.3.2008 the State Commission withdrew the special tariff.

2.3. Aggrieved by the above order dated 20.3.2008, the appellants filed a writ petition, being WP No. 6625 of 2008 before the High Court of Orissa. The High Court in its Judgment dated 16.3.2010 refused to interfere with the State Commission's order relating to the special tariff but directed the State Commission to

strictly comply with the requirement of Sections 61 and 62 of the 2003 Act and the Regulations of the State Commission while fixing the tariff for the FY 2010-11. The State Commission was also directed to fix the cost of supply at various voltage levels and also indicate the cost for each category and indicate the extent of cross subsidy existing and the plan of action to reduce it over a period of time as envisaged in the 2003 Act and the Regulations.

2.4. In the meantime, on 30.11.2009, the distribution licensee filed petition, being petition No. 142 of 2009 for determination of its ARR and tariff before the State Commission for the FY 2010-11. In response to the above petition, the appellants filed objections and reiterated the need to give concessional tariff to Ferro Alloy units, determination of category wise and voltage wise cost of supply and reducing the cross-subsidy.

2.5. The State Commission by its order dated 20.3.2010 decided the ARR and retail supply tariff of the distribution licensee for the FY 2010-11. In this Tariff Order, the State Commission did not determine the voltage-wise or category-wise cost of supply and has determined the cross subsidy for Extra High Voltage (EHV), High Voltage (HV) and Low Voltage (LV) consumers with respect to average cost of supply for the state as a whole. The State Commission also increased the cross subsidy for the appellant's category with respect to the previous year. Aggrieved by this order, the appellants have filed these appeals.

3. As the impugned order and the issues raised in the appeals are common, a common Judgment is being rendered.

4. The appellants have made the following submissions:-

4.1. Section 61(g) of the 2003 Act mandates that the State Commission while determining the tariff shall be guided by the objective that the tariff progressively reflects the cost of supply of electricity and also the cross-subsidies are reduced. However, without regard to the mandate that the tariff should progressively reflect the cost of supply, the State Commission has not determined the cost of supplying electricity to the appellants at 132 KV by use of the transmission system alone, which would not involve any cost to the distribution licensee except negligible expense of raising the bills and recovery of charges.

4.2. Thus, the appellants could not be loaded of the costs and expenses of the distribution licensee except

the limited cost of the raising of bills and recovery of amount, interest on working capital and the proportionate rate of return on equity. The State Commission has wrongly loaded the appellants with the distribution system losses with which the appellants have no relation whatsoever.

4.3. The State Commission has erred in not determining the voltage-wise cost of supply in the case of appellants on the ground that in the absence of metering of all consumers, the Commission has to base its tariff design on average cost of supply. The State Commission instead of following mandate of the Electricity Act to reduce the cross subsidy gradually has determined the tariff in the manner so as to increase the cross subsidy level.

5. The learned counsel for the State Commission argued in support of the findings of the State Commission and stated that the State Commission had balanced the interest of various stakeholders while determining the tariff and dealing with the issue of cross subsidization. The learned counsel for the respondent no. 2 has also argued in support of the impugned order. He also urged that appellants were earlier getting concessional tariff due to their status as export-oriented units. These industries with the passage of time have lost their status as export oriented unit and, therefore, not entitled to the concessional tariff. Even otherwise, the concessional tariff was applicable upto March, 2008 by the order of the State Commission.

6. After considering the contentions of the parties, we have framed the following questions for consideration:

i) Whether the State Commission has erred in not determining the tariff of the appellants based on the actual cost of supply according to the provisions of the Act, the Policy and the Regulations?

ii) Whether the tariff of the appellant being Extra High Voltage (EHV) consumer getting supply directly through the transmission system of the transmission licensee should include the elements of fixed charges relating to the distribution network of the distribution licensee and the distribution system losses?

7. Both the questions are interwoven and therefore, we have to take them up together.

8. According to the learned counsel for the appellant, the State Commission has not considered the actual cost of supply for the category of consumers contrary to the provisions of the Act, Regulations and the directions given by the High Court of Orissa in the Judgment dated 16.3.2010. The State Commission is not right in holding that it is not possible to determine category wise cost of supply in case of appellant's category of consumers due to lack of data. On the contrary the distribution licensee itself in its filing had duly given the category wise cost of supply to the State Commission. Further the appellants' category of consumers are being supplied electricity from the transmission network of the transmission licensee without any intervention or use of the system of the

distribution licensee, therefore, it is not difficult for the State Commission to determine cost of supply in their case.

9. We will first examine the provisions of the Act, the Policy and the Regulations relating to cost of supply and cross subsidy. The relevant extracts from the Statement of Objects and Reasons of the 2003 Act are reproduced as under:

> *"1.3. Over a period of time, however, the performance of SEBs has deteriorated substantially on account of various factors. For instance, though power to fix tariffs vests with the State Electricity Boards, they have generally been unable to take decisions on tariffs in a professional and independent manner and tariff determination in practice has been done by the State Governments. Cross-subsidies have reached unsustainable levels. To address this issue and to provide for distancing of government from*

determination of tariffs, the Electricity Regulatory Commissions Act, was enacted in 1998".

"4. The main features of the Bill are as follows:

……..

(vi) The State Electricity Regulatory Commissions may permit open access in distribution in phases with surcharge for

(a) current level of cross subsidy to be gradually phased out along with cross subsidies."

10. The relevant provisions of the Electricity Act, 2003 are reproduced as under:

"61. **Tariff Regulations**- The Appropriate *Commission shall, subject to the provisions of this Act, specify the terms and conditions for the determination of tariff, and in doing so, shall be guided by the following, namely:-*

(a)……..

(b) the generation, transmission, distribution and supply of electricity are conducted on commercial principles;

(c)----------

(d) safeguarding of consumers' interest and at the same time, recovery of the cost of electricity in a reasonable manner;

(e)----------

(f)----------

(g) that the tariff progressively reflects the cost of supply of electricity, and also, reduces cross-subsidies within the period to be specified by the Appropriate Commission;

(h)----------

(i) the National Electricity Policy and tariff policy".

Thus, one of the factors guiding the determination of tariff will be that it progressively reflects the cost of

supply. Also the cross subsidies have to be reduced progressively.

11. Section 62(3) of the 2003 Act stipulates as under:

> *"(3) The Appropriate Commission shall not, while determining the tariff under this Act, show undue preference to any consumer of electricity but may differentiate according to the consumer's load factor, power factor, voltage, total consumption of electricity during any specified period or the time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which the supply is required."*

Thus one of the factors on which the tariffs for different categories of consumers could be differentiated is voltage.

12. Section 86(4) of the Electricity Act is reproduced as under:

> *"(4) In discharge of its functions the State Commission shall be guided by the National*

Electricity Policy, National Electricity Plan and tariff policy published under sub-section (2) of section 3".

13. The Tariff Policy provides as under:

"8.3 Tariff design : Linkage of tariffs to cost of service

It has been widely recognised that rational and economic pricing of electricity can be one of the major tools for energy conservation and sustainable use of ground water resources.

In terms of the Section 61 (g) of the Act, the Appropriate Commission shall be guided by the objective that the tariff progressively reflects the efficient and prudent cost of supply of electricity.

Accordingly, the following principles would be adopted:

1. In accordance with the National Electricity Policy, consumers below poverty line who consume below a specified level, say 30 units per month, may receive a special support through cross subsidy. Tariffs for such designated group of

consumers will be at least 50% of the average cost of supply. This provision will be re-examined after five years.

2. For achieving the objective that the tariff progressively reflects the cost of supply of electricity, the SERC would notify roadmap within six months with a target that latest by the end of year 2010-2011 tariffs are within ± 20 % of the average cost of supply. The road map would also have intermediate milestones, based on the approach of a gradual reduction in cross subsidy.

For example if the average cost of service is Rs. 3 per unit, at the end of year 2010-2011 the tariff for the cross subsidized categories excluding those referred to in para 1 above should not be lower than Rs. 2.40 per unit and that for any of the cross-subsidising categories should not go beyond Rs. 3.60 per unit."

Thus, the Tariff Policy envisages that the tariff should progressively reflect the efficient and prudent cost of

supply of electricity and latest by 2010-11 the tariffs for all categories of consumers except the consumers below poverty line should be within ±20% of the average cost of supply.

The Tariff Policy indicates determination of cross subsidy in the context of determination of cross subsidy surcharge for open access under para 8.5. The relevant extract is reproduced below:

> *"Accordingly, when open access is allowed the surcharge for the purpose of sections 38,39,40 and sub-section 2 of section 42 would be computed as the difference between (i) the tariff applicable to the relevant category of consumers and (ii) the cost of the distribution licensee to supply electricity to the consumers of the applicable class. In case of a consumer opting for open access, the distribution licensee could be in a position to discontinue purchase of power at the margin in the merit order. Accordingly, the cost of supply to the consumer for*

this purpose may be computed as the aggregate of (a) the weighted average of power purchase costs (inclusive of fixed and variable charges) of top 5% power at the margin, excluding liquid fuel based generation, in the merit order approved by the SERC adjusted for average loss compensation of the relevant voltage level and (b) the distribution charges determined on the principles as laid down for intra-state transmission charges.

Surcharge formula:

$S = T - [\, C\,(1 + L / 100) + D \,]$

Where

S is the surcharge

T is the Tariff payable by the relevant category of consumers;

C is the Weighted average cost of power purchase of top 5% at the margin excluding liquid fuel based generation and renewable power

D is the Wheeling charge

L is the system Losses for the applicable voltage level, expressed as a percentage".

Thus the cross subsidy surcharge according to Tariff Policy for open access consumer has to be the difference between the applicable tariff and the cost of the distribution licensee to supply electricity for the applicable class of consumer. The distribution system losses applied in the surcharge formula are also the system losses for the applicable voltage level.

14. The National Electricity Policy notified by the Central Government provides as under:

> *"5.5.1. There is an urgent need for ensuring recovery of cost of service from consumers to make the power sector sustainable".*
>
> *"5.5.3. Over the last few decades cross-subsidies have increased to unsustainable levels. Cross-subsidies hide inefficiencies and losses in operations. There is urgent need to correct this imbalance without giving tariff shock to consumers. The existing cross-subsidies for other categories of*

consumers would need to be reduced progressively and gradually".

Thus, the policy provides for progressive and gradual reduction of the cross-subsidies of the subsidizing consumers, without giving tariff shock to the subsidized consumers.

15. The State Commission's Tariff Regulations of 2004 refer to computation of cross subsidy with reference to determination of surcharge. The relevant section is reproduced below:

"7. Tariff Principles

(a) .....

(b) .....

(c) Surcharge

(i) Surcharge to be levied on wheeling consumers shall be determined by the Commission keeping in view the loss of cross-subsidy from the consumers or category of consumers who have opted

for open access to take supply from a person other than the incumbent distribution licensee.

(ii) The Commission may adopt requisite principle for computing surcharge, which shall compensate for the entire loss of cross subsidy for any given consumer category for which supply is given, as the Act clearly states that such surcharges shall be utilised to meet the requirements of current level of cross-subsidy. The entire amount of cross-subsidy lost by the incumbent licensee needs to be compensated.

(iii) For the purpose of computing cross-subsidy, the difference between cost-to-serve of that category and average tariff realisation of that category shall be considered".

Thus, according to the Regulations of the State Commission, the open access consumer has to

compensate for the entire loss of cross subsidy for the given consumer category. The cross subsidy will be computed as the difference between cost to serve the concerned category of consumers and average tariff realization of that category of consumers.

16. In view of above provisions of the Act, National Electricity Policy, Tariff Policy and the Regulations, we have to find answer to the question whether the tariff of the appellants should be based on average cost of supply or actual cost of supply to the appellant's consumer category, which we shall do in the following paragraphs.

17. Section 61(g) of the 2003 Act stipulates that the tariff should progressively reflect the cost of supply and cross subsidies should be reduced within the time period specified by the State Commission. The Tariff

Policy stipulates the target for achieving this objective latest by the end of year 2010-11, such that the tariffs are within ± 20% of the average cost of supply. In this connection, it would be worthwhile to examine the original provision of the Section 61(g). The original provision of Section 61(g) "the tariff progressively reflects the cost of supply of electricity and also, reduces and eliminates cross subsidies within the period to be specified by the Appropriate Commission" was replaced by "the tariff progressively reflects the cost of supply of electricity and also reduces cross subsidies in the manner specified by the Appropriate Commission" by an amendment under Electricity (Amendment) Act, 2007 w.e.f. 15.6.2007. Thus the intention of the Parliament in amending the above provisions of the Act by removing provision for elimination of cross subsidies appears to be that the

cross subsidies may be reduced but may not have to be eliminated. The tariff should progressively reflect the cost of supply but at the same time the cross subsidy, though may be reduced, may not be eliminated. If strict commercial principles are followed, then the tariffs have to be based on the cost to supply a consumer category. However, it is not the intent of the Act after the amendment in the year 2007 (Act 26 of 2007) that the tariff should be the mirror image of the cost of supply of electricity to a category of consumer.

18. Section 62(2) provides for the factors on which the tariffs of the various consumers can be differentiated. Some of these factors like load factor, power factor, voltage, total electricity consumption during any specified period or time or geographical position also affects the cost of supply to the consumer. Due

weightage can be given in the tariffs to these factor to differentiate the tariffs.

19. The National Electricity Policy provides for reducing the cross subsidies progressively and gradually. The gradual reduction is envisaged to avoid tariff shock to the subsidized categories of consumers. It also provides for subsidized tariff for consumers below poverty line for minimum level of support. Cross subsidy for such categories of consumers has to be necessarily provided by the subsidizing consumers.

20. The Tariff Policy clearly stipulates that for achieving the objective that the tariff progressively reflects the cost of supply of electricity, latest by the end of the year 2010-11, the tariffs should be within ±20% of the average cost of supply, for which the State Commission would notify a road-map. The road map

would also have intermediate milestones for reduction of cross subsidy.

21. According to the Tariff Regulation 7 (c) (iii) of the State Commission the cross subsidy has to be computed as difference between cost-to-serve a category of consumer and average tariff realization of that category.

22. After cogent reading of all the above provisions of the Act, the Policy and the Regulations we infer the following:

i) The cross subsidy for a consumer category is the difference between cost to serve that category of consumers and average tariff realization of that category of consumers. While the cross-subsidies have to be reduced progressively and gradually to avoid tariff

shock to the subsidized categories, the cross-subsidies may not be eliminated.

ii) The tariff for different categories of consumer may progressively reflect the cost of electricity to the consumer category but may not be a mirror image of cost to supply to the respective consumer categories.

iii) Tariff for consumers below the poverty line will be at least 50% of the average cost of supply.

iv) The tariffs should be within ±20% of the average cost of supply by the end of 2010-11 to achieve the objective that the tariff progressively reflects the cost of supply of electricity.

v) The cross subsidies may gradually be reduced but should not be increased for a category of subsidizing consumer.

vi) The tariffs can be differentiated according to the consumer's load factor, power factor, voltage, total consumption of electricity during specified period or the time or the geographical location, the nature of supply and the purpose for which electricity is required.

Thus, if the cross subsidy calculated on the basis of cost of supply to the consumer category is not increased but reduced gradually, the tariff of consumer categories is within ±20% of the average cost of supply except the consumers below the poverty line, tariffs of different categories of consumers are differentiated only according to the factors given in

Section 62(3) and there is no tariff shock to any category of consumer, no prejudice would have been caused to any category of consumers with regard to the issues of cross subsidy and cost of supply raised in this appeal.

23. On these principles we will examine if any prejudice has been caused to the appellants in determining their tariff in the impugned order.

24. First we will examine the relevant findings of the State Commission in the impugned order which are reproduced as under:

> *"373. Thus, as per the order of the Hon'ble High Court, the Commission is required to indicate the cost of supply for each category and extent of cross-subsidy existing and plan of action to reduce it to over a period of time as envisaged in Section 61(g) of the Electricity Act, 2003 and Regulation*

7(c) (iii) of OERC (Terms and Conditions for Determination of Tariff) Regulations, 2004.

374. With regard to fixation of cost of supply it may be stated that as per Section 62 of the Electricity Act, 2003, the Commission is required to determine the Retail Tariff to be charged by Distribution Licensees from its consumers. The Commission while determining the tariff is required to give consideration to the factors (load factor, power factor, voltage etc.) listed in Section 62(3), 61(c) and 61(e) of the Electricity Act, 2003 which are essentially cost determinants. Economically efficient tariff should consider the cost impact of these factors only without providing for any cross subsidies. The Electricity Act, 2003 recognizes the fact that tariff of some consumer categories are presently below the cost of supply and being cross-subsidized by other categories. Therefore, it is desirable that a tariff shock due to abrupt elimination of cross-subsidy for such consumers should be avoided. Hence, it provides for

progressive reduction of cross-subsidy and does not provide for elimination of cross subsidy.

It terms of Section 61 (g) of electricity Act, 2003 the appropriate Commission shall be guided by the objective that the tariff progressively reflects the efficient and prudent cost of supply of electricity and also reduces cross-subsidies in the manner specified by the Commission. Para 8.3.2 of Tariff Policy enjoins that for achieving the objective that tariff progressively reflects the cost of supply of electricity, the SERC would notify road map within 6 months with a target that latest by the end of year 2010-11 tariffs are within ±20% of the "average cost of supply"."

" 376. Section 62 of the Electricity Act, 2003 empowers OERC to determine tariff for retail sale of electricity. While doing so, the Commission is to be guided by National Electricity Policy and Tariff Policy under the provision of Section 61(i) of the said Act. We have already discussed the provisions regarding the reduction of cross-subsidy in the above two Policies of the Central Govt. The

terms cross-subsidy has not been defined in the Electricity Act, 2003, the National Electricity and Tariff Policy. None of them also provide for methodology for computing cross-subsidy. The amount of cross-subsidy received/contributed by various consumer categories is dependent on the way the cost of supply is calculated. Such calculation may be:

- *Average cost of supply*
- *Cost of supply voltage wise*
- *Cost of supply to various consumer categories.*

Depending upon the mode of calculation adopted, the cross-subsidy differs. However, the Clause 8.3 of the Tariff Policy requires tariff to be within ± 20% of the average cost of supply by 2010-11. Again as per para 5.5.2 of the National Electricity Policy, the Tariff for consumers of BPL category should be at least 50% of the average (overall) cost of supply. From conjoint reading of the above provisions of National Tariff Policy and Electricity Policy, the cost of supply can be construed to mean the average

cost of supply by the Licensee at different voltage taken together.

377. Some consumer groups argue in favour of determination of cost of supply by consumer category-wise. But voltage-wise cost determination is the first step in determining the consumer-wise cost of supply. For voltage-wise cost determination, it is important that the accounting system of the Licensee are oriented towards capturing costs voltage-wise at the point of origin as and when these are incurred. The Commission has also emphasized the requirement for segregation of network cost in terms of voltage level (LT, HT & EHT). This has not been possible due to various reasons – such as determination of voltage-wise and consumer category-wise technical and non- technical losses, essential for determining cost of supply. In the absence of 100% working meters at the level of consumers and distribution transformer, it is quite impossible to determine the exact percentage of loss both at technical and commercial level. The distribution network of

Orissa is such that it is technically not possible to segregate the common cost between different voltage levels. The accounting system of the DISCOMs may also be required to establish a basis for allocating common costs to all the voltage level which they have not been able to do till date. The submission of DISCOMs regarding cost allocation during tariff filing does not have technical or commercial data support. There will be a conjectural element in the determination of cost of supply in spite of all scientific rigours, especially because the distribution and transmission network are un-segregated. Because of such conjectural element estimates of cost of supply would differ from one stakeholder to another. Therefore, it would be prudent to accept the average overall cost of supply for the whole State as envisioned in Tariff Policy and National Electricity Policy for computation of cross subsidy."

The State Commission has expressed difficulties in determining the voltage-wise cost of supply in the absence of 100% metering at the level of consumers

and distribution transformers. The State Commission has also held that the submissions of distribution companies regarding cost allocation in the tariff filing do not have technical and commercial data support. The State Commission has also concluded that from the conjoint reading of the Tariff Policy and National Electricity Policy, the cost of supply can be construed to mean the average cost of supply. Therefore, the State Commission has considered it prudent to accept the average overall cost of supply for computation of cross-subsidy.

25. Further, the State Commission by the impugned order (para 379) has categorised the consumers into three categories on voltage basis, viz; Extra High Tension (EHT), High Tension (HT) and Low Tension (except the sub-categories of Kutir Jyoti, Domestic Irrigation Pumping, Allied Agricultural Activities,

Allied Agro Industrial Activities and General Purpose), each category being given uniform retail tariff for the entire state, irrespective of the distribution licensee supplying electricity to the consumer. Cross subsidy has been provided to all the above sub-categories except the general purpose. The cross subsidy is provided by general purpose LT consumers, HT consumers and EHT consumers.

26. The State Commission has further discussed the computation of cross subsidy in para 381 to 383 of the impugned order, the relevant portion of which are reproduced below:

> *"As already pointed out above, for retail tariff the "average cost of supply" is worked out on the basis of pooled power purchase cost of GRIDCO for the whole State following principles laid down in Tariff Policy and National Electricity Policy, and the cost of distribution for the whole State is added*

thereto. Cross-subsidy is derived from the excess/deficit of this State-wide retail tariff so calculated above/below the said average cost of supply. The State-wide retail tariff here is the tariff for each of the three categories of consumers namely EHT, HT and LT. This complies with Regulation 7 (c) (iii) of the OERC (Terms and Conditions for Determination of Tariff), Regulations, 2004, enacted earlier than the Tariff Policy. The provisions state:

> *"For the purpose of computing cross-subsidy the difference between cost-to-serve that category and the average tariff realization of that category shall be considered".*

In the context of the present rationalized tariff the word "category" in the above provision denotes EHT, HT and LT but "cost-to-serve that category" as per the aforesaid method of calculation from pooled power purchase cost, would turn out to be the same figure for each such category. It is noteworthy that the above provision is not region-

specific, i.e. cost-to-serve is not to be calculated region-wise for distribution areas of NESCO, WESCO, SOUTHCO and CESU".

"383. Regarding the extent of cross-subsidy existing at various voltage levels, let us examine how far the Commission have kept cross subsidy within ± 20% of the average cost of supply as mandated in para 8.3.2 of Tariff Policy.

Table-42

Year (1)	Level of Voltage (2)	Average cost of supply for the State as a whole (P/U) (3)	Tariff (P/U) (4)	Cross-Subsidy (P/U) 5=(4)-(3)	Percentage of Cross –subsidy above/below or cost of supply (6)
2009-10	**EHT**	263	295.05	32.05	(+) 12.18
	HT		308.68	45.68	(+) 17.36
	LT		179.99	(-) 83.01	(-) 31.56
2010-11	**EHT**	327.37	379.93	52.00	(+) 15.88
	HT		383.68	56.31	(+) 17.20
	LT		219.21	(-)108.16	(-) 33.03

Thus the State Commission has held that the cross subsidy has to be worked out as difference

between Tariff for the category of consumer and average cost of supply for the state as a whole. The average tariff of HT and EHT consumers, has been worked out with energy consumption at assumed load factor of 80% instead of average tariff realization of the respective categories according to the ARR. With the above calculations, the State Commission established that the tariffs are within ± 20% of average cost of supply in consonance with the Tariff Policy.

27. We do not agree with the findings of the State Commission that the cost to supply a consumer category is the same as average cost of supply for the distribution system as a whole and average cost of supply can be used in calculation of cross subsidy instead of cost to supply. This is contrary to Regulation 7 (c)(iii) of the State Commission. Learned counsel for the appellants has argued that the

appellants being EHT consumers get power supply directly through the transmission system without the use of the distribution system of the licensee and therefore, the distribution losses should not be loaded on their tariff. He also relied on decision of this Tribunal on the principle of reducing cross subsidy in the following Judgments:

SIEL limited, New Delhi v/s Punjab Electricity Regulatory Commission & Ors, 2007 APTEL 931; Spencer's Retail Limited v/s Maharashtra Electricity Regulatory Commission & Ors., 2007 ELR 9 (APTEL 1592); Spencer's Retail Limited v/s Maharashtra Electricity Electricity & Ors. 2007 (Order dated 18.0202008); Kashi Vishwanath Steel Limited v/s Uttaranchal Electricity Regulatory Commission & Ors. (Order dated 02.06.2006); Spencer's Retail Limited v/s Maharashtra Electricity Electricity & Ors. (Order dated 27.0102009); Multiplex Association of India v/s Maharashtra Electricity Regulatory Commission & Another, (Order dated 19.01.2009) and Spencer's Retail

Ltd. Vs. Maharashtra Electricity Regulatory Commission & Another . (Order dated 1 July 2009).

28. Of the above Judgments of this Tribunal, 2007 APTEL 931 Siel Limited vs. PSERC & Ors. has a clear finding on the cost of supply. The relevant extracts of the Judgment are reproduced below:

> *"109. According to Section 61(g) of the Act of 2003, the Commission is required to specify the period within which cross subsidy would be reduced and eliminated so that the tariff progressively reflects the cost of supply of electricity. Under Section 28(2) of the Act of 1998, the Commission while prescribing the terms and conditions of tariff was required to safeguard the interests of the consumers and at the same time, it was to ensure that the consumers paid for the use of the electricity in a manner based on average cost of supply. The word "Average" preceding the words "cost of supply" is absent in Section 61(g) of the Act of 2003. The omission of the word "Average" is*

significant. It indicates that the cost of supply means the actual cost of supply, but it is not the intent of the legislation that the Commission should determine the Tariff based on cost of supply from the date of the enforcement of the Act of 2003. Section 61(g) of the Act of 2003 envisages a gradual transition from the Tariff loaded with cross subsidies to a Tariff reflective of cost of supply to various class and categories of consumers. Till the Commission progressively reaches that stage, in the interregnum, the roadmap for achieving the objective must be notified by the Commission within six months from January 6, 2006, when the Tariff Policy was notified by the Government of India, i.e. by July 6, 2006. In consonance with the Tariff Policy, by the end of the year 2010-11, tariffs are required to be fixed within ± 20 per cent of the average cost of supply (pooled cost of supply of energy received from different sources). But the policy has reached only up to average cost of supply. As per the Act, Tariff must be gradually fine tuned to the cost of supply of electricity and the Commission should be able to reach the target

within a reasonable period of time to be specified by it. Therefore, for the present, the approach adopted by the Commission in determining the average cost of supply cannot be faulted. We, however, hasten to add that we disapprove the view of the Commission that the words "Cost of Supply" means "Average Cost of Supply.

110. Keeping in view the provisions of Section 61 (g), which requires Tariff to ultimately reflect the cost of supply of electricity and the National Tariff Policy, which requires Tariff to be within ± 20 per cent of the average cost of supply, it seems to us that the Commission must determine the cost of supply, as that is the goal set by the Act. It should also determine the average cost of supply. Once the figures are known, they must be juxtaposed, with the actual tariff fixed by the Commission. This will transparently show the extent of cross subsidy added to the tariff, which will be the difference between the tariff per unit and the actual cost of supply".

This Tribunal in the above Judgment has held that the cost of supply as indicated in Section 61(g) is not the average cost of supply but the actual cost of supply and the cross subsidy is the difference between the tariff fixed by the State Commission and the actual cost of supply.

29. The State Commission has indicated in the impugned order that the voltage-wise cost determination is the first step in determining the consumer-wise cost of supply but has expressed difficulties in determination of voltage-wise cost of supply due to non-segregation of costs incurred by the licensee related to different voltage levels and determination of technical and commercial losses at different voltage levels due to non-availability of meters. The State Commission has also noted that the

data submitted by the distribution licensee does not have technical or commercial data support.

30. It is regretted that even after six years of formation of the Regulations, the State Commission has not been able to establish data for the distribution losses. The position of metering in the distribution system of respondent no. 2 is pathetic. Only about 1/4th of 11 KV feeders have been metered and very small numbers of transformers have been provided with meters. Only 68% of the consumer meters are functional in the distribution system as indicated in Table-37 of the impugned order. It is also noticed that a large number of meters are old electro mechanical meter which are not functioning. This is in contravention to Section 55 of the Act. Section 55(1) specifies that no licensee shall supply electricity after the expiry of two years from the appointed data, except

through installation of a correct meter in accordance with the Regulations of the Central Electricity Authority. According to Section 55(2) meters have to be provided for the purpose of accounting and audit. According to Section 8.2.1 (2) of the Tariff Policy, the State Commission has to undertake independent assessment of baseline data for various parameters for every distribution circle of the licensee and this exercise should be completed by March, 2007. In our opinion the State Commission can not be a silent spectator to the violation of the provisions of the Act. In view of large scale installation of meters, the State Commission should immediately direct the distribution licensee to submit a capital scheme for installation of consumer and energy audit meters including replacement of defective energy meters with the correct meters within a reasonable time schedule

to be decided by the State Commission. The State Commission may ensure that the meters are installed by the distribution licensee according to the approved metering scheme and the specified schedule. In the meantime, the State Commission should institute system studies for the distribution system with the available load data to assess the technical distribution losses at different voltage levels.

31. We appreciate that the determination of cost of supply to different categories of consumers is a difficult exercise in view of non-availability of metering data and segregation of the network costs. However, it will not be prudent to wait indefinitely for availability of the entire data and it would be advisable to initiate a simple formulation which could take into account the major cost element to a great extent reflect the cost of supply. There is no need to make distinction

between the distribution charges of identical consumers connected at different nodes in the distribution network. It would be adequate to determine the voltage-wise cost of supply taking into account the major cost element which would be applicable to all the categories of consumers connected to the same voltage level at different locations in the distribution system. Since the State Commission has expressed difficulties in determining voltage wise cost of supply, we would like to give necessary directions in this regard.

32. Ideally, the network costs can be split into the partial costs of the different voltage level and the cost of supply at a particular voltage level is the cost at that voltage level and upstream network. However, in the absence of segregated network costs, it would be prudent to work out the voltage-wise cost of supply

taking into account the distribution losses at different voltage levels as a first major step in the right direction. As power purchase cost is a major component of the tariff, apportioning the power purchase cost at different voltage levels taking into account the distribution losses at the relevant voltage level and the upstream system will facilitate determination of voltage wise cost of supply, though not very accurate, but a simple and practical method to reflect the actual cost of supply.

33. The technical distribution system losses in the distribution network can be assessed by carrying out system studies based on the available load data. Some difficulty might be faced in reflecting the entire distribution system at 11 KV and 0.4 KV due to vastness of data. This could be simplified by carrying

out field studies with representative feeders of the various consumer mix prevailing in the distribution system. However, the actual distribution losses allowed in the ARR which include the commercial losses will be more than the technical losses determined by the system studies. Therefore, the difference between the losses allowed in the ARR and that determined by the system studies may have to be apportioned to different voltage levels in proportion to the annual gross energy consumption at the respective voltage level. The annual gross energy consumption at a voltage level will be the sum of energy consumption of all consumer categories connected at that voltage plus the technical distribution losses corresponding to that voltage level as worked out by system studies. In this manner, the total losses allowed in the ARR can be apportioned to different voltage levels including the

EHT consumers directly connected to the transmission system of GRIDCO. The cost of supply of the appellant's category who are connected to the 220/132 KV voltage may have zero technical losses but will have a component of apportioned distribution losses due to difference between the loss level allowed in ARR (which includes commercial losses) and the technical losses determined by the system studies, which they have to bear as consumers of the distribution licensee.

34. Thus Power Purchase Cost which is the major component of tariff can be segregated for different voltage levels taking into account the transmission and distribution losses, both commercial and technical, for the relevant voltage level and upstream system. As segregated network costs are not available, all the other costs such as Return on Equity, Interest on Loan, depreciation, interest on working capital and

O&M costs can be pooled and apportioned equitably, on pro-rata basis, to all the voltage levels including the appellant's category to determine the cost of supply. Segregating Power Purchase cost taking into account voltage-wise transmission and distribution losses will be a major step in the right direction for determining the actual cost of supply to various consumer categories. All consumer categories connected to the same voltage will have the same cost of supply. Further, refinements in formulation for cost of supply can be done gradually when more data is available.

35. We have also noticed that the State Commission has wrongly determined the average tariff realization for the appellants' consumer category at an assumed load factor of 80%. According to Regulation 7(c) (iii) cross subsidy has to be computed as the difference between cost to serve that category and the average

tariff realization of that category. Thus the method used by the State Commission in calculating average tariff for the appellant's category is incorrect and needs to be corrected as per formula given below:

$$\text{Average Tariff realization for a category} = \frac{\text{Total expected revenue realized from that category as per ARR}}{\text{Total anticipated sale to that category as per ARR}}$$

It is also noticed that the State Commission has clubbed different categories of consumers having different tariff on the basis of voltage of supply for computing average tariff for the purpose of determining cross subsidy. This is not the correct and transparent method of determining cross subsidy. Cross subsidy has to be determined for each category of consumer having different tariff to have transparency in actual cross subsidy being given by the subsidizing consumer and that received by the subsidized consumers.

36. The learned counsel for the Appellants has argued that it would not be difficult to determine cost to supply for them as they draw electricity directly from the transmission system of the State Transmission Licensee. We feel that even if it is not difficult for the State Commission to determine the cost of supply for the appellants, unless the cost of supply is determined for all the consumer categories connected to different voltage levels, it will not serve any purpose. We also do not accept the argument of the learned counsel for the appellant that the distribution losses and network costs in respect of the appellant consumer category will be nil. As stated above, the commercial losses of the distribution system have to be borne by all the consumers of the distribution licensee. However, as the distribution losses reduce gradually, the cost of supply for the appellants'

category will also reduce. We also can not grant any relief to the appellants on account of fixed charges for the distribution system assets and O&M expenses, etc. due to complexities involved in determining the segregated cost of service and in light of amendment of 2007 of the Act removing the provision for elimination of subsidies.

37. We, however, direct the State Commission to determine the cross subsidy for each consumer category after working out the voltage-wise cost of supply based on the directions given in the preceding paragraphs. The cross subsidy will be calculated as the difference between the average tariff realization for that category as per the Annual Revenue Requirement and the cost of supply for the consumer category based on voltage-based cost of supply.

38. We would now examine if the tariffs are within ± 20% of the average cost of supply in consonance with the Tariff Policy.

39. The State Commission in the impugned order has made three categories viz., EHT, HT and LT based on voltage level and determined the average tariff for each voltage level in Table-42 of the impugned order. However, it is noticed that each voltage category has consumer sub-categories which have different tariffs. The tariff for each category which has different tariff has to be compared with average cost of supply to check if all the tariffs are within ± 20% of the average cost of supply. For example, consumers under LT General Purpose have energy tariff varying from 420 to 590 p/kWh whereas the LT agriculture has energy tariff of 110 p/kWh. Thus, both these categories of consumers can not be clubbed together for the

purpose of ensuring that the tariff for each consumer category is within ±20% of average cost of supply and also for determining cross subsidy and, therefore, have to be shown separately. In our opinion, Table-42 of the impugned order which shows that EHT and HT categories are within ± 20% of the average cost of supply and LT categories about 33% above the average cost of supply is an incorrect representation. As far as the appellants' consumer category is concerned, even though their average tariffs in the impugned order has been shown as within + 20% of the cost of supply, the average tariff has been calculated at 80% load factor and not on average tariff realization of the consumer category as per the ARR which is incorrect and contrary to the Regulation. However, the LT consumer's tariff even when different consumer categories are clubbed together is beyond (-) 20%

which is not in consonance with the Tariff Policy. The State Commission is directed to correctly determine the variation in tariff of each consumer category/sub-category with respect to average cost of supply in accordance with the directions given in this Judgment to see whether the mandate of the Tariff Policy of having tariff within ± 20% of the average cost of supply has been met or not in respect of the appellants' category and other categories.

40. We are also unable to establish if the cross subsidy as determined with respect to cost to supply has reduced, with respect to the previous year (s) for the appellants' category, as per the mandate of the Act, or not as the State Commission has not determined the cross subsidy with respect to cost of supply according to the Regulations. We are also not in a

position to establish if the tariff for different categories of consumers including the appellant's category is within ± 20% of average cost of supply as per the mandate of the Tariff Policy due to incorrect representation in the impugned order. Determination of cost of supply as per our directions will involve carrying out system studies which is time consuming and can be implemented only in the future tariff orders. However, whether the tariff of the appellant's category is within 20% of the average cost of supply can be determined. Accordingly, the State Commission is directed to determine the average tariff realization per unit of the appellant's category which will be the expected revenue realised from the appellants' consumer category divided by the expected energy sale to the appellants' consumer category according to the ARR, and check if the tariff applicable

to appellants' consumer category is within 20% of average cost of supply and provide consequential benefit to the appellants, if any after hearing all concerned.

41. **Summary of our findings**

41.1. After considering the provisions of the Act, the National Electricity Policy, Tariff Policy and the Regulations of the State Commission, we have come to the conclusion that if the cross subsidy calculated on the basis of cost of supply to the consumer category is not increased but reduced gradually, the tariff of consumer categories is within ±20% of the average cost of supply except the consumers below the poverty line, tariffs of different categories of consumers are differentiated only according to the factors given in Section 62(3)

and there is no tariff shock to any category of consumer, no prejudice would have been caused to any category of consumers with regard to the issues of cross subsidy and cost of supply raised in this appeal.

41.2. We do not agree with the findings of the State Commission that cost to supply a consumer category is the same as average cost of supply for the distribution system as a whole and average cost of supply can be used in calculation of cross subsidy instead of actual cost of supply. This is contrary to Regulation 7 (c)(iii) of the State Commission and findings of this Tribunal in the Judgment reported in 2007(APTEL) 931 SIEL Limited, New Delhi v/s PSERC & Ors.

41.3. The State Commission has expressed difficulties in determining cost of supply in view of non-availability of metering data and segregation of the network costs. In our opinion, it will not be prudent to wait indefinitely for availability of the entire data and it would be advisable to initiate a simple formulation which could take into account the major cost elements. There is no need to make distinction between the distribution charges of identical consumers connected at different nodes in the distribution network. It would be adequate to determine the voltage-wise cost of supply taking into account the major cost element which would be applicable to all the categories of consumers connected to the same voltage level at different locations in the distribution system. We have given a practical formulation to determine voltage

wise cost of supply to all category of consumers connected at the same voltage level in paragraphs 31 to 35 above. Accordingly, the State Commission is directed to determine cross subsidy for different categories of consumers within next six months from FY 2010-11 onwards and ensure that in future orders for ARR and tariff of the distribution licensees, cross subsidies for different consumer categories are determined according to the directions given in this Judgment and that the cross subsidies are reduced gradually as per the provisions of the Act.

41.4. In view of pathetic condition of consumers and distribution feeder and transformer metering, we direct the State Commission to take immediate action for preparation of a metering scheme as a

project by the distribution company and its approval and implementation as per a time bound schedule to be decided by the State Commission.

41.5. According to the Tariff Policy, the tariff of all categories of consumers except those below poverty line have to be within ± 20% of the total average cost of supply. The variation of tariffs of different category with respect to average cost of supply has not been correctly determined by the State Commission. The State Commission has erred in clubbing different consumer categories having different tariff in one category based on voltage of supply. Also for the appellants' category average tariff per unit has been incorrectly determined at assumed load factor of 80%. The State Commission is directed to determine the

average tariff for appellant's another category according to the directions given in paragraphs 39 and 40. Accordingly, we remand the matter to the State Commission to re-determine the variation of average tariff for different consumer categories with respect to average cost of supply and provide consequential relief to appellant's consumer category in terms of the tariff policy, if any, after hearing all concerned.

42. **Conclusion**

In view of above, we remand the matter to the State Commission to correctly determine the variation of tariff of the appellant's category with respect to average cost of supply and provide consequential relief to the appellants in terms of the Tariff Policy, if any. The State Commission is also directed to take action

on consumer and audit metering and determination of cross subsidy based on actual cost of supply in accordance with the directions given in this Judgment. No order as to cost.

43. Pronounced in the open court on this **30th day of May, 2011.**

(Justice P.S. Datta)
Judicial Member

(Rakesh Nath)
Technical Member

REPORTABLE / NON-REPORTABLE

vs